# SHARP SERVICE MANUAL

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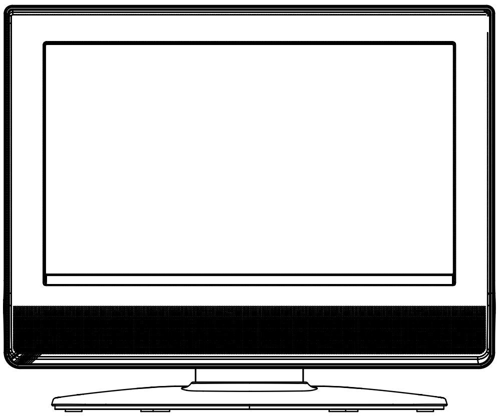

## LCD COLOR TELEVISION/ DVD VIDEO PLAYER

## MODEL LC-26DV10U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

## SERVICING NOTICES ON CHECKING

### 1. KEEP THE NOTICES

As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

### 2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

### 3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.
Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a ⚠ mark, the designated parts must be used.

### 4. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

### 5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

### 6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

**(INSULATION CHECK PROCEDURE)**

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the eternal exposure metal **[Note 2]** should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

**[Note 1]**

If you have not the 500V insulation resistance meter, use a Tester.

**[Note 2]**

External exposure metal: Antenna terminal
Earphone jack

## HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER
   The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.
2. PART NO. and DESCRIPTION
   You can find it in your SERVICE MANUAL.

## IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease.
(Old grease may cause damage to the IC and Transistor).

# WHEN REPLACING DVD DECK

**[ When removing the DVD Deck ]**

Before removing Pick Up PCB and DVD PCB connector, the short circuit the position shown in **Fig. 1** using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.

**[ When installing the DVD Deck ]**

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD PCB connector.

**NOTE**

- Before your operation, please read “PREPARATION OF SERVICING”.
- Use the Lead Free solder.
- Manual soldering conditions
  - Soldering temperature: 320 ± 20˚C
  - Soldering time: Within 3 seconds
  - Soldering combination: Sn-3.0Ag-0.5Cu
- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.

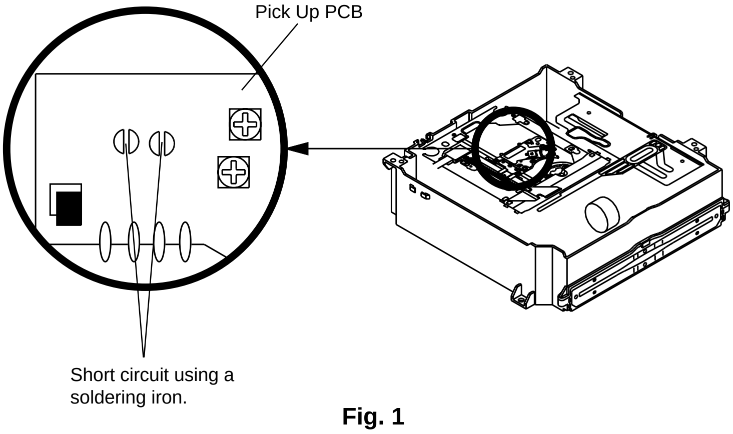


**Fig. 1**

## DISC REMOVAL METHOD AT NO POWER SUPPLY

1. Remove the Back Cabinet. **(Refer to item 1 of the DISASSEMBLY INSTRUCTIONS.)**
2. Slide the Rack Loading toward the arrow direction by hand to release the lock. **(Refer to Fig. 1)**
3. Take out the Disc from the DVD Deck. Be careful not to scratch on the Disc.

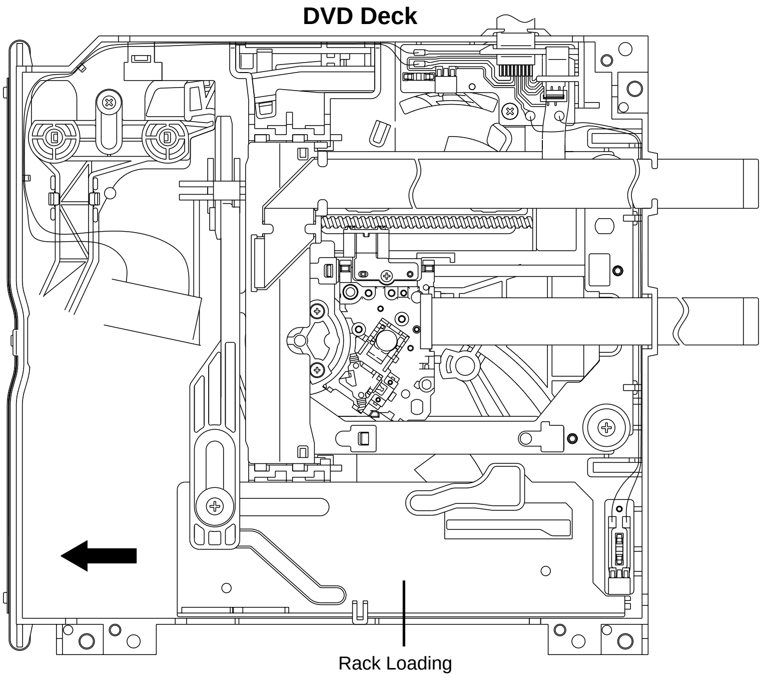


**Fig. 1**

# PARENTAL CONTROL - RATING LEVEL

## 4 DIGIT PASSWORD CANCELLATION

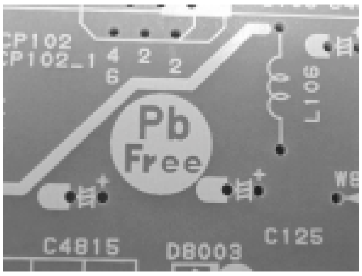
If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

1. Turn Unit ON.
2. Set the DVD Mode.
3. Confirm that the 'No Disc' will be appeared on the screen.
4. Press and hold the '7' key on the remote control unit.
5. Simultaneously press and hold the 'STOP' key on the front panel.
6. Hold both keys for more than 2 seconds.
7. The On Screen Display message 'PASSWORD CLEAR' will appear.
8. The 4 digit password has now been cleared

# ABOUT LEAD FREE SOLDER (PbF)

### Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



## Caution:

- Pb free solder has a higher melting point than standard solder;
  Typically the melting point is 86°F~104°F(30°C~40°C) higher.
  Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
  In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
  When soldering or unsoldering, completely remove all of the solder from the pins or solder area, and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

### Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

# GENERAL SPECIFICATIONS

| | | | | | |
|---|---|---|---|---|---|
| **G-1** | **TV System** | LCD | LCD Size / Visual Size | | 25.5 inch / 647.7mmV |
| | | | LCD Type | | Color TFT LCD |
| | | | Number of Pixels | | 1366(H) x 768(V) |
| | | | View Range | Left/Right | 85/85 degree |
| | | | | Up/Down | 85/85 degree |
| | | Color System | | | NTSC |
| | | Speaker | | | 2 Speaker |
| | | | Position | | Front |
| | | | Size | | 2.2 x 5.0 inch |
| | | | Impedance | | 4 ohm |
| | | Sound Output | Max | | 10W + 10W |
| | | | 10%(Typical) | | --- |
| **G-2** | **DVD System** | Color System | | | NTSC |
| | | Disc | | | DVD, CD-DA, CD-R/RW<br>DVD-R/RW (Video Format Only) |
| | | Disc Diameter | | | 120 mm , 80 mm |
| | | Drive | | | DSM-2 |
| | | Search speed | Fwd | | 4 step |
| | | | | Actual | 2-45 times (DVD) |
| | | | | | 4-40 times (CD) |
| | | | Rev | | 4 step |
| | | | | Actual | 2-45 times (DVD) |
| | | | | | 4-40 times (CD) |
| | | Slow speed | Fwd | | 1/7 -1/2 times |
| | | | | Actual | -- |
| | | | Rev | | 1/7 -1/2 times |
| | | | | Actual | -- |
| **G-3** | **Tuning System** | Broadcasting System | Analog | | US System M |
| | | | Digital | | ATSC(8VSB)/QAM |
| | | Tuner and Receive CH | System | | 1Tuner |
| | | | Destination | | US (W/CABLE) |
| | | | CH Coverage | | 2~69, 4A, A-5~A-1, A~I, J~W, W+1~W+84 |
| | | Intermediate Frequency | Digital | | 44.00MHz |
| | | | Analog | Picture(FP) | 45.75MHz |
| | | | | Sound(FS) | 41.25MHz |
| | | | | FP-FS | 4.50MHz |
| | | Preset CH | | | No |
| | | Stereo/Dual TV Sound | | | US-Stereo |
| | | Tuner Sound Muting | | | Yes |
| **G-4** | **Signal** | Video Signal | Input Level | | 1 V p-p/75 ohm |
| | | | Output Level | | -- |
| | | | S/N Ratio (Weighted) | | -- |
| | | | Horizontal Resolution at DVD Mode | | --<br>-- |
| | | RGB Signal | Output Level | | -- |
| | | Audio Signal | Input Level | | 0.85 V p-p/50k ohm |
| | | | Output Level | at DVD | 0.85 V p-p/1k ohm |
| | | | | at TV | 0.85 V p-p/1k ohm |
| | | | | | 0-1.70 V p-p/1k ohm (Variable out mode) |
| | | | Digital Output Level | | 0.5 V p-p/75 ohm |
| | | | S/N Ratio at DVD (Weighted) | | 90dB |
| | | | Harmonic Distortion | | 0.02% (1KHz) |
| | | | Frequency Response : | at DVD | 4Hz - 22kHz |
| | | | | at Video CD | -- |
| | | | | at SVCD | -- |
| | | | | at CD | 4Hz - 20kHz |
| **G-5** | **Power** | Power Source | AC | | 120V, 60Hz |
| | | | DC | | -- |
| | | Power Consumption | | at AC | 155W at 120V 60Hz |
| | | | | at DC | -- |
| | | | Stand by (at AC) | | 1W at 120V 60Hz |
| | | | Energy Star | | Yes |
| | | | Per Year | | -- kWh/Year |
| | | Protector | Power Fuse | | Yes |
| | | | Safety Circuit | | Yes |
| | | | IC Protector(Micro Fuse) | | Yes |
| **G-6** | **Regulation** | | Safety | | UL/CSA/NOM |
| | | | Radiation | | FCC/IC |
| | | | Laser | | DHHS |
| **G-7** | **Temperature** | | Operation | | +5oC ~ +40oC |
| | | | Storage | | -20oC ~ +60oC |
| **G-8** | **Operating Humidity** | | | | Less than 80% RH |

# GENERAL SPECIFICATIONS

| | | | | |
|---|---|---|---|---|
| **G-9** | **Clock and Timer** | Clock | | Yes |
| | | Sleep Timer | Max Time | 120 Min |
| | | | Step | 10 Min |
| | | On Timer | Program | No |
| | | Off Timer | Program | No |
| | | Game Timer | | No |
| | | Wake Up Timer | | No |
| | | Timer Back-up (at Power Off Mode) | more than | -- Min Sec |
| **G-10** | **Remote Control** | Unit | | RC-MR |
| | | Glow in Dark Remocon | | No |
| | | Remocon Format | | SHARP |
| | | Format | | TV:SHARP, DVD:KASEIKYO |
| | | Custom Code | | TV:SHARP 15bit, DVD:KASEIKYO 48bit |
| | | Power Source | Voltage(D.C) | 3V |
| | | | UM size x pcs | UM-3 x 2 pcs |
| | | Total Keys | | 47 Keys |
| | | Keys | POWER | Yes |
| | | | DISPLAY | Yes |
| | | | SLEEP | Yes |
| | | | VIEW MODE | Yes |
| | | | INPUT SELECT | Yes |
| | | | 1 | Yes |
| | | | 2 | Yes |
| | | | 3 | Yes |
| | | | 4 | Yes |
| | | | 5 | Yes |
| | | | 6 | Yes |
| | | | 7 | Yes |
| | | | 8 | Yes |
| | | | 9 | Yes |
| | | | 0 | Yes |
| | | | MUTE | Yes |
| | | | AUDIO | Yes |
| | | | VOL+ | Yes |
| | | | VOL- | Yes |
| | | | CH+ | Yes |
| | | | CH- | Yes |
| | | | LEFT/SLOW- | Yes |
| | | | ENTER | Yes |
| | | | RIGHT/SLOW+ | Yes |
| | | | UP | Yes |
| | | | DOWN | Yes |
| | | | SETUP/TV MENU | Yes |
| | | | EXIT/CANCEL | Yes |
| | | | RETURN | Yes |
| | | | •/SUBTITLE | Yes |
| | | | TV/DVD | Yes |
| | | | OPEN/CLOSE(EJECT) | Yes |
| | | | FWD(SEARCH+) | Yes |
| | | | REV(SEARCH-) | Yes |
| | | | SKIP+ | Yes |
| | | | SKIP- | Yes |
| | | | PAUSE/STILL | Yes |
| | | | PLAY | Yes |
| | | | STOP | Yes |
| | | | PLAY MODE | Yes |
| | | | ANGLE | Yes |
| | | | ZOOM | Yes |
| | | | DVD MENU | Yes |
| | | | TOP MENU | Yes |
| | | | REPAT A-B | Yes |
| | | | MARKER | Yes |
| | | | DIRECT SKIP(JUMP) | Yes |
| | | | FREEZE | No |

# GENERAL SPECIFICATIONS

| | | | | | |
|---|---|---|---|---|---|
| **G-11** | **Features<br>(TV)** | Auto Shut Off | | Yes | |
| | | Auto Search | | | No |
| | | Power On Memory | | | No |
| | | Comb Filter | | Yes<br>3 -D | |
| | | Game Position | | | No |
| | | Auto Setup(Language/CH Program) | | | No |
| | | Picture Setting(TV) | | Yes | |
| | | | AV Mode(Picture Preference) | Yes | |
| | | | Brightness , Contrast , Color | Yes | |
| | | | Tint | Yes | |
| | | | Sharpness | Yes | |
| | | | Color Temperature | Yes | |
| | | | Cable Clear | | No |
| | | Audio | MTS | Yes | |
| | | | Tone Control (Bass/Treble/Balance) | Yes | |
| | | | Stable Sound | | No |
| | | | Surround | | No |
| | | | BBE | | No |
| | | | SRS WOW (SRS 3D/Focus/Tru Bass) | Yes | |
| | | | Valiable Audio Out | Yes | |
| | | Tuning | CH Program | Yes | |
| | | | Air/Cable | Yes | |
| | | | ADD/DELETE | Yes | |
| | | Label | CH Label | Yes | |
| | | | Video Label | Yes | |
| | | Favorite CH | | | No |
| | | V-Chip | | Yes | |
| | | | Type | USA/CANADA Type | |
| | | RRT Setup | | Yes | |
| | | Lock | Hotel Lock | | No |
| | | | Channel Lock | | No |
| | | | Video Lock | | No |
| | | | Panel Lock | | No |
| | | OSD Language | | English<br>French | |
| | | Closed Caption | | Yes | |
| | | CC Advanced | | Yes | |
| | | View Mode (Picture Size) | | Yes | |
| | | Picture Scroll | | Yes | |
| | | Cinema Mode | | Yes | |
| | | Aspect | | Yes | |
| | | Backlight | | Yes | |
| | | PFC(Power Factor circuit) | | | No |
| | | Freeze frame | | | No |
| | | PIP/POP | | | No |
| | | Direct Input Selection | | Yes | |
| | | Digital Out | Dolby Digital | Yes | |
| | | | MPEG | | No |
| | | | PCM | Yes | |
| | | | DTS | | No |
| | | PC Monitor Input | | | No |
| | | | VGA (640x480) | | No |
| | | | VGA (720x400) | | No |
| | | | WVGA (848x480) | | No |
| | | | SVGA (800x600) | | No |
| | | | XGA (1024x768) | | No |
| | | | WXGA (1280x768) | | No |
| | | | WXGA (1280x720) | | No |
| | | | WXGA (1360x768) | | No |
| | | | SXGA (1280x1024) | | No |
| | | HDMI Input | | Yes | |
| | | | VGA (640×480) | Yes (60Hz) | |
| | | | 720x480i (4:3) | Yes (60Hz) | |
| | | | 720x480i (16:9) | Yes (60Hz) | |
| | | | 720x480p (4:3) | Yes (60Hz) | |
| | | | 720x480p (16:9) | Yes (60Hz) | |
| | | | 720x576i (4:3) | | No |
| | | | 720x576i (16:9) | | No |
| | | | 720x576p (4:3) | | No |
| | | | 720x576p (16:9) | | No |
| | | | 1280x720p | Yes (60Hz) | |
| | | | 1920x1080i | Yes (60Hz) | |

# GENERAL SPECIFICATIONS

| | | | | |
|---|---|---|---|---|
| | | Component Input | | Yes |
| | | | 720x480i (4:3) | Yes (60Hz) |
| | | | 720x480i (16:9) | Yes (60Hz) |
| | | | 720x480p (4:3) | Yes (60Hz) |
| | | | 720x480p (16:9) | Yes (60Hz) |
| | | | 720x576i (4:3) | No |
| | | | 720x576i (16:9) | No |
| | | | 720x576p (4:3) | No |
| | | | 720x576p (16:9) | No |
| | | | 1280x720p | Yes (60Hz) |
| | | | 1920x1080i | Yes (60Hz) |
| | **Features (DVD)** | Video CD Playback | | No |
| | | SVCD Playback | | No |
| | | MP3 Playback | | Yes |
| | | JPEG | | Yes |
| | | WMA | | Yes |
| | | Digital Out | (Dolby Digital) | Yes |
| | | | (MPEG) | Yes |
| | | | (PCM) | Yes |
| | | | (DTS) | Yes |
| | | Down Mix Out | (Dolby Digital) | Yes |
| | | | (DTS) | No |
| | | Closed Caption | | Yes |
| | | Screen Saver | | No |
| | | Audio DAC | | 192kHz / 24bit |
| **G-12** | **Accessories** | Owner's Manual | Language | English/French/Spanish |
| | | | w/Guarantee Card | Yes |
| | | Remote Control Unit | | Yes |
| | | Rod Antenna | | No |
| | | | Poles | -- |
| | | | Terminal | -- |
| | | Loop Antenna | | No |
| | | | Terminal | -- |
| | | U/V Mixer | | No |
| | | DC Car Cord (Center+) | | No |
| | | Guarantee Card | | No |
| | | Warning Sheet | | No |
| | | Circuit Diagram | | No |
| | | Antenna Change Plug | | No |
| | | Service Facility List | | No |
| | | Important Safeguard | | No |
| | | Dew/AHC Caution Sheet | | No |
| | | Quick Set-up Sheet | | No |
| | | Battery | | Yes |
| | | | UM size x pcs | UM-3 x 2 pcs |
| | | | OEM Brand | No |
| | | AC Adapter | | No |
| | | AC Cord (for AC Adapter) | | No |
| | | AC Cord (Flat Polarity Plugs) | | Yes |
| | | Cable Cramp | | Yes |
| | | Stand | | Yes |
| | | Stand Screw | | Yes |
| | | Hexagon Wrench | | Yes |
| | | AV Cord (2Pin-1Pin) | | No |
| | | Registration Card (NDL Card) | | Yes |
| | | 300 to 75ohm Antenna Adapter | | No |

# GENERAL SPECIFICATIONS

| | | | | | |
|---|---|---|---|---|---|
| **G-13** | **Interface** | Switch | Top | Power (Tact) | Yes |
| | | | | Channel Up/Menu Up | Yes |
| | | | | Channel Down/Menu Down | Yes |
| | | | | Volume Up/Menu > | Yes |
| | | | | Volume Down/Menu < | Yes |
| | | | | Menu | No |
| | | | | Play | Yes |
| | | | | Eject | Yes |
| | | | | Skip+, Search+ | Yes |
| | | | | Skip-, Search- | Yes |
| | | | | Still/Pause | No |
| | | | | Stop | Yes |
| | | | | Main Power SW | No |
| | | | | Input Select | Yes |
| | | | Rear | Main Power SW | No |
| | | Indicator | | Power/Stand-By | Yes (Green / Red) |
| | | | | On Timer | No |
| | | Terminals | Rear | Video Input 1 | RCA x 1 |
| | | | | Audio Input 1 | RCA x 2(L/MONO, R) |
| | | | | S - Input 1 | Yes |
| | | | | Video Input 2 | RCA x 1 |
| | | | | Audio Input 2 | RCA x 2(L/MONO, R) |
| | | | | S - Input 2 | Yes |
| | | | | Video Output | No |
| | | | | Audio Output | RCA x 2 (Variable) (L, R) |
| | | | | Component Input 1 | RCA x 3 |
| | | | | Analog Audio | RCA x 2(L/MONO, R) |
| | | | | Component Input 2 | No |
| | | | | Analog Audio | No |
| | | | | HDMI Input | HDMI x 1 |
| | | | | Analog Audio | RCA x 2(L/MONO, R) |
| | | | | Sub Woofer Out | No |
| | | | | PC Monitor Input | No |
| | | | | Analog Audio | No |
| | | | | Digital Audio Output | Coaxial |
| | | | | DC Jack (Center +) | No |
| | | | | VHF/UHF Antenna Input | F Type |
| | | | | AC Inlet | Yes |
| | | | Side | Video Input 3 | No |
| | | | | Audio Input 3 | No |
| | | | | S - Input 3 | No |
| | | | | Other Terminal | No |
| **G-14** | **Set Size** | | | Approx. W x D x H (mm) | 682.5 x 282.5 x 565 |
| | | | | w/o Handle, Stand Approx. W x D x H (mm) | 682.5x 111.5 x 506 |
| **G-15** | **Weight** | | | Net (Approx.) | 13.8kg (30.4lbs) |
| | | | | Net w/o Handle, Stand (Approx.) | 12.1kg (26.7lbs) |
| | | | | Gross (Approx.) | 16.5kg (36.4lbs) |
| **G-16** | **Carton** | | Master Carton | | No |
| | | | | Content | --- Sets |
| | | | | Material | --- / --- |
| | | | | Dimensions W x D x H(mm) | --- |
| | | | | Description of Origin | --- |
| | | | Gift Box | Material | Double/Brown |
| | | | | W/Color Photo Label | No |
| | | | | W/Handle | No |
| | | | | Dimensions W x D x H(mm) | 781 x 255 x 622 |
| | | | | Description of Origin | Yes |
| | | | Drop Test | | 1 Corner / 3 Edges / 6 Surfaces |
| | | | | Height (cm) | 32(ORION SPEC:46) |
| | | | Container Stuffing (40' container) | | 405 Sets/40' container |
| **G-17** | **Material** | | Cabinet | Front | PS 94V0 NON-DECABROM |
| | | | | Rear | PS 94V0 NON-DECABROM |
| | | | | Jack Panel | -- |
| | | | PCB | Non-Halogen Demand | No |
| | | | | Eyelet Demand | Yes |
| **G-18** | **Environment** | | Environmental standard requirement | | Green procurement of SHARP |
| | | | Pb-free | | Phase3(Phase3A) |
| | | | | Measures for Whisker | Yes |
| | | | Rohs | | Yes |

# DISASSEMBLY INSTRUCTIONS

## 1. REMOVAL OF MECHANICAL PARTS AND P.C. BOARDS

### 1-1: BACK CABINET (Refer to Fig. 1-1)

1. Remove the 19 screws ①.
2. Remove the Back Cabinet in the direction of arrow.

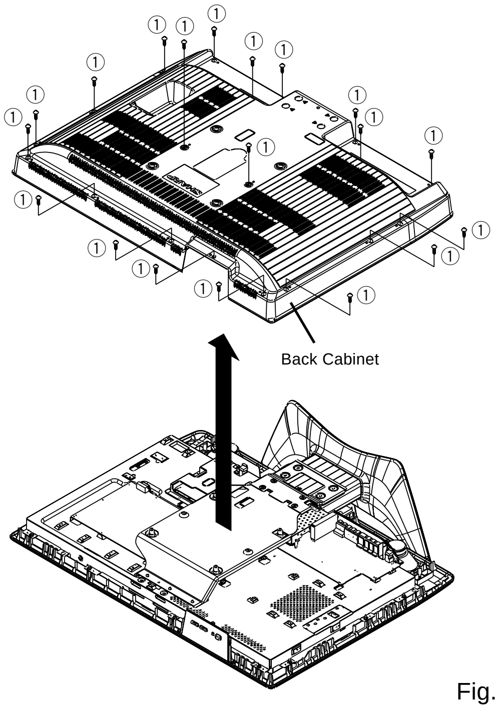

①
Back Cabinet

Fig. 1-1

### 1-2: STAND ASS'Y/ANGLE BACK 1/2/PLATE JACK 1/2 (Refer to Fig. 1-2)

1. Remove the 4 screws ①.
2. Remove the Stand Ass'y in the direction of arrow (A).
3. Remove the 4 screws ②.
4. Remove the 6 screws ③.
5. Remove the Angle Back 1/2 in the direction of arrow (B).
6. Remove the 4 screws ④.
7. Remove the Plate Jack 2 in the direction of arrow (C).
8. Remove the 11 screws ⑤.
9. Remove the Plate Jack 1 and Shield Jack in the direction of arrow (D).

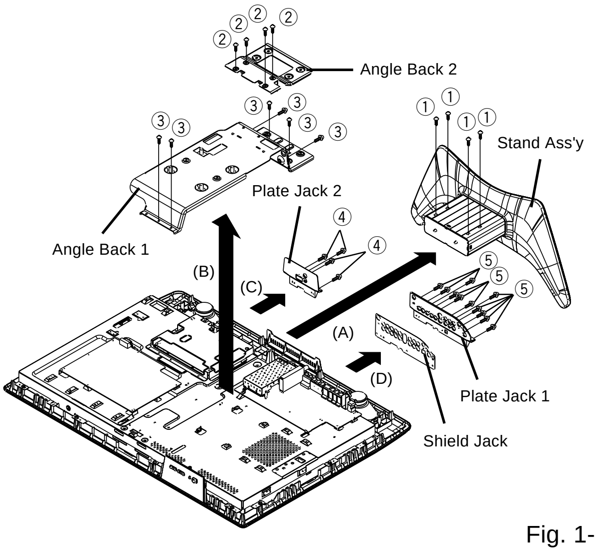

②
Angle Back 2
③
①
Stand Ass'y
Plate Jack 2
④
Angle Back 1
(B)
(C)
⑤
(A)
(D)
Plate Jack 1
Shield Jack

Fig. 1-2

### 1-3: PCB ASS'Y (Refer to Fig. 1-3)

1. Disconnect the following connectors:
   (CP506, CP507, CP508, CP510, CP511, CP512).
2. Remove the 9 screws ①.
3. Remove the Holder AC-Inlet and Power PCB in the direction of arrow (A).
4. Disconnect the following connectors:
   (CP802, CP803, CP2200, CP3201, CP3602, CP7203).
5. Remove the 10 screws ②.
6. Remove the Shield Scaler and Scaler PCB in the direction of arrow (B).
7. Disconnect the following connectors:
   (CP301, CP302, CP2403, CP2404, CP4202).
8. Remove the 6 screws ③.
9. Remove the DigitalPCB and AV PCB in the direction of arrow (C).
10. Remove the 2 screws ④.
11. Remove the Remocon PCB in the direction of arrow (D).
12. Remove the 5 screws ⑤.
13. Remove the Plate Button and Operation PCB in the direction of arrow (E).

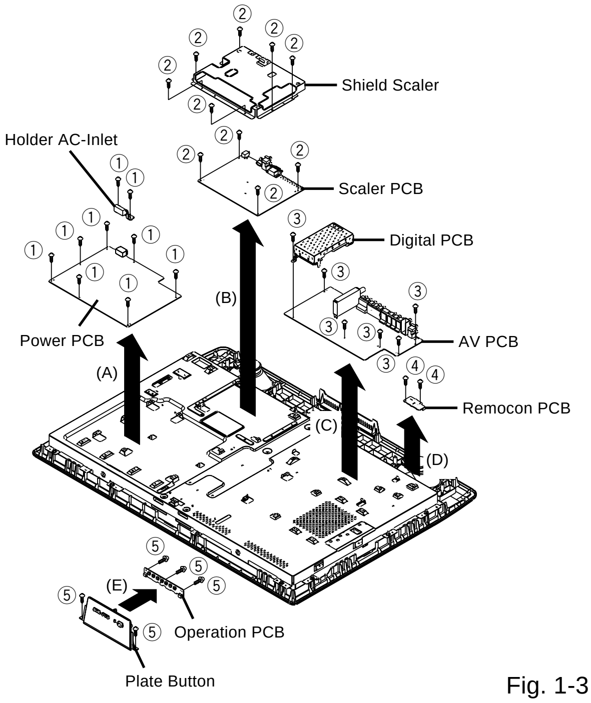

②
Shield Scaler
Holder AC-Inlet
①
Scaler PCB
③
Digital PCB
(B)
Power PCB
AV PCB
(A)
④
Remocon PCB
(C)
(D)
⑤
(E)
Operation PCB
Plate Button

Fig. 1-3

# DISASSEMBLY INSTRUCTIONS

## 1-4: LCD COVER/LCD PANEL (Refer to Fig. 1-4)

1. Remove the 8 screws ①.
2. Remove the LCD Cover in the direction of arrow (A).
3. Remove the 4 screws ②.
4. Remove the LCD Panel in the direction of arrow (B).

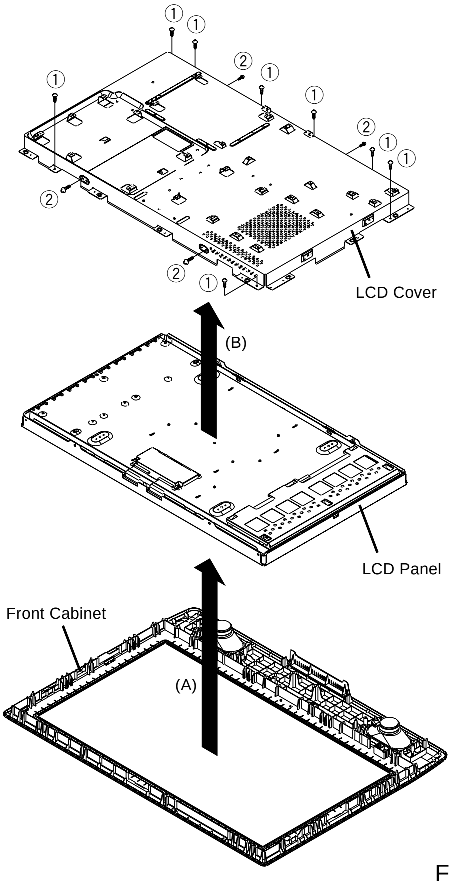

①
①
②
①
①
①
②
①
①
②
②
①
LCD Cover
(B)
LCD Panel
Front Cabinet
(A)

Fig. 1-4

# DISASSEMBLY INSTRUCTIONS

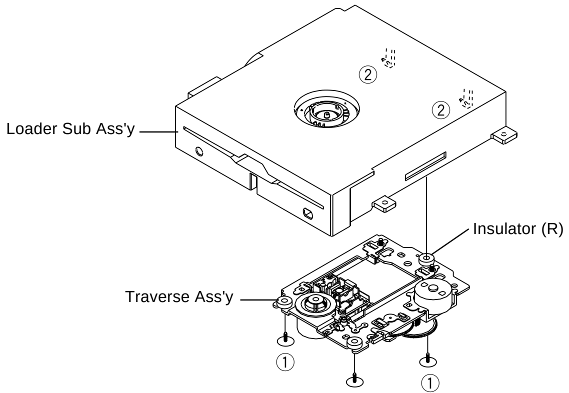
## 2. REMOVAL OF DVD DECK PARTS

**NOTE**

1. Disassemble only the DVD DECK PARTS parts listed here. Minute adjustments are needed if the disassembly is done. If the repair is needed except listed parts, replace the DVD MECHA ASS'Y.

### 2-1: TRAVERSE ASS'Y (Refer to Fig. 2-1-A)

1. Remove the 3 screws ①.
2. Unlock the 2 supports ②.
3. Remove the Insulator (R) from the Loader Sub Ass'y.
4. Remove the Traverse Ass'y.


②
②
Loader Sub Ass'y
Insulator (R)
Traverse Ass'y
①
①
①

• Screw Torque: 2.0 ± 0.3kgf•cm

Fig. 2-1-A

**NOTE**

1. In case of the Traverse Ass'y installation, hook the wire on the Loader Ass'y as shown Fig. 2-2-B to Fig. 2-2-D.

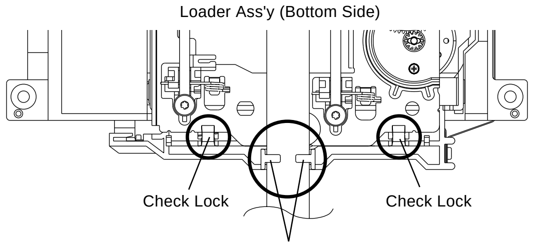

Loader Ass'y (Bottom Side)
Check Lock
Check Lock
Check Hook

Fig. 2-1-B

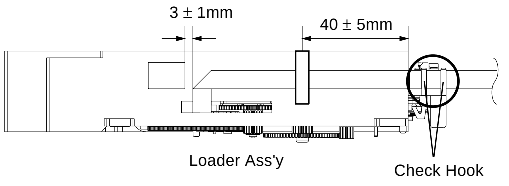

3 ± 1mm
40 ± 5mm
Loader Ass'y
Check Hook

Fig. 2-1-C

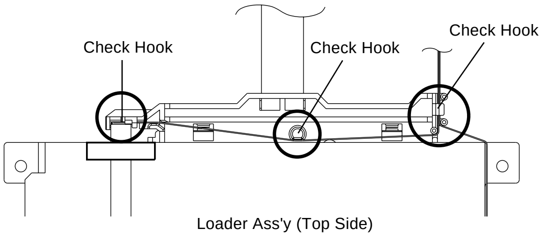
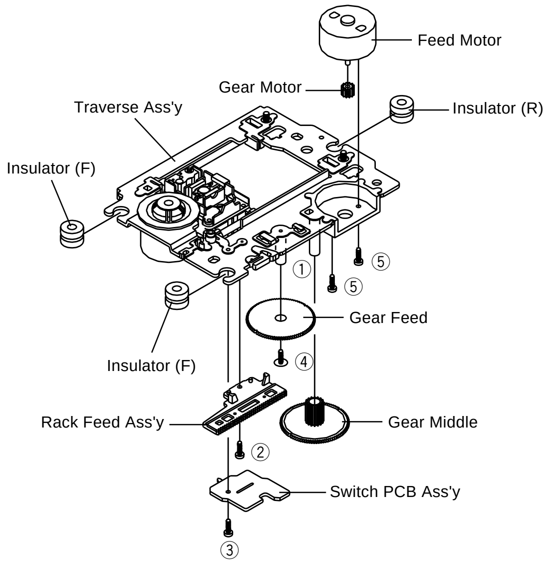

Check Hook
Check Hook
Check Hook
Loader Ass'y (Top Side)

Fig. 2-1-D

### 2-2: SWITCH PCB ASS'Y/GEAR MIDDLE/GEAR FEED/RACK FEED ASS'Y/FEED MOTOR (Refer to Fig. 2-2-A)

1. Remove the Insulator (F).
2. Remove the Insulator (R).
3. Unlock the support ①.
4. Remove the Gear Middle.
5. Remove the screw ②.
6. Remove the Rack Feed Ass'y.
7. Remove the screw ③.
8. Remove the Switch PCB Ass'y.
9. Remove the screw ④.
10. Remove the Gear Feed.
11. Remove the 2 screws ⑤.
12. Remove the Feed Motor.
13. Remove the Gear Motor.


Feed Motor
Gear Motor
Traverse Ass'y
Insulator (R)
Insulator (F)
⑤
①
⑤
Gear Feed
Insulator (F)
④
Rack Feed Ass'y
Gear Middle
②
Switch PCB Ass'y
③

• Screw Torque: 1.3 ± 0.3kgf•cm (Screw ②)
• Screw Torque: 3.0 ± 0.3kgf•cm (Screw ③)
• Screw Torque: 1.0 ± 0.3kgf•cm (Screw ④, ⑤)

Fig. 2-2-A

**NOTE**

1. When installing the Rack Feed Ass'y, push both ends to align the teeth as shown Fig. 2-2-B. Then install it.
2. In case of the Gear Motor installation, check if the value of the Fig. 2-2-C is correct.
3. When installing the wire of the Switch PCB Ass'y, install it correctly as Fig. 2-2-D.
   Manual soldering conditions
   • Soldering temperature: 350 ± 5˚C
   • Soldering time: Within 4 seconds
   • Soldering combination: Sn-3.0Ag-0.5Cu
4. After the assembly of the Traverse Ass'y, hook the wire on the Traverse Ass'y as shown Fig. 2-2-E.

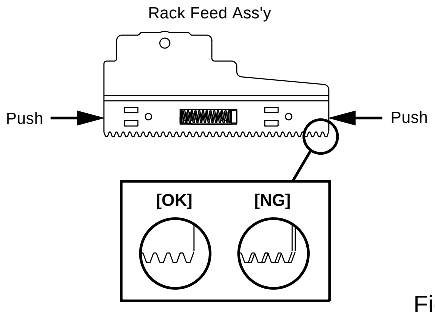

Rack Feed Ass'y
Push
Push
[OK]
[NG]

Fig. 2-2-B

# DISASSEMBLY INSTRUCTIONS

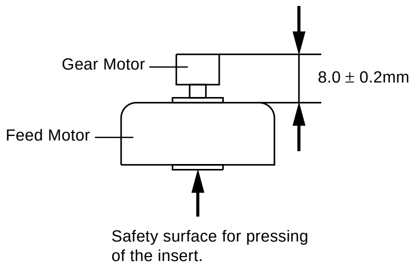
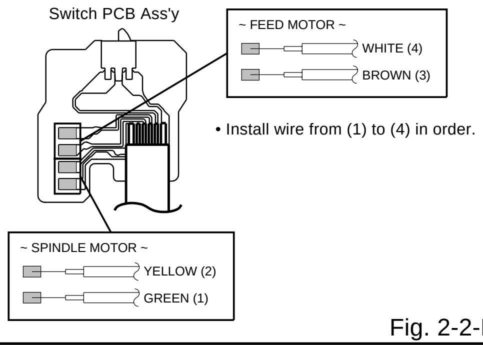
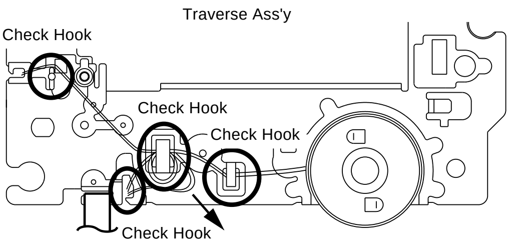

Gear Motor
8.0 ± 0.2mm
Feed Motor
Safety surface for pressing of the insert.

Fig. 2-2-C


Switch PCB Ass'y
~ FEED MOTOR ~
WHITE (4)
BROWN (3)
~ SPINDLE MOTOR ~
YELLOW (2)
GREEN (1)

- Install wire from (1) to (4) in order.

Fig. 2-2-D


Traverse Ass'y
Check Hook
Check Hook
Check Hook
Check Hook

- Loosen the wire in the direction of the arrow.

Fig. 2-2-E

### 2-3: FFC WIRE HANDLING

1. When installing the FFC, fold it correctly and install it as shown from Fig. 2-3-A to Fig. 2-3-B.

**NOTE**

1. Do not make the folding lines except the specified positions for the FFC.

**[ 24 pin FFC ]**

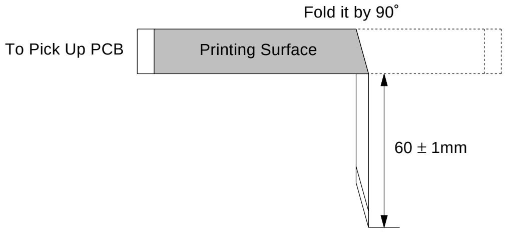

Fold it by 90˚
To Pick Up PCB
Printing Surface
60 ± 1mm

Fig. 2-3-A

**[ 6 pin FFC ]**

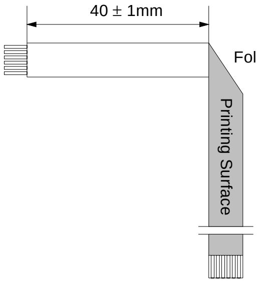

40 ± 1mm
Fold
Printing Surface

Fig. 2-3-B

# DISASSEMBLY INSTRUCTIONS

## 3. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

### REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage.
   **(Refer to Fig. 3-1.)**

   **NOTE**

   Masking is carried out on all the parts located within 10 mm distance from IC leads.

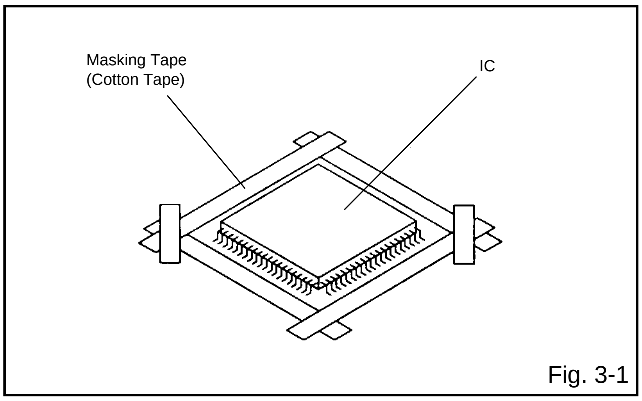

Masking Tape
(Cotton Tape)
IC

Fig. 3-1

2. Heat the IC leads using a blower type IC desoldering machine. **(Refer to Fig. 3-2.)**

   **NOTE**

   Do not rotate or move the IC back and forth , until IC can move back and forth easily after desoldering the leads completely.

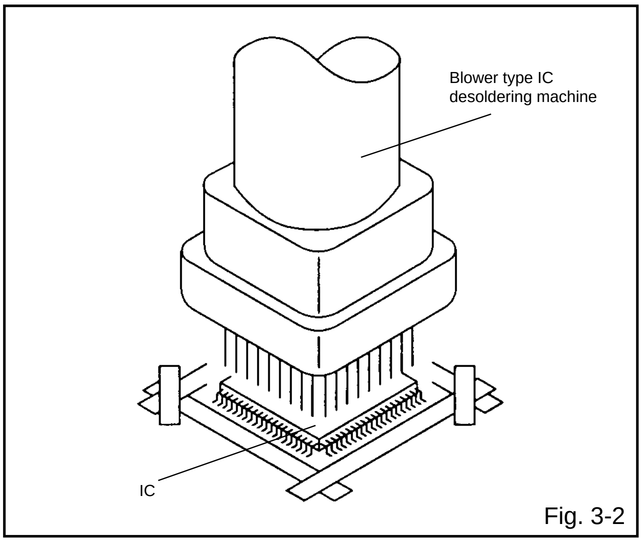

Blower type IC
desoldering machine
IC

Fig. 3-2

3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. **(Refer to Fig. 3-3.)**

   **NOTE**

   Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.

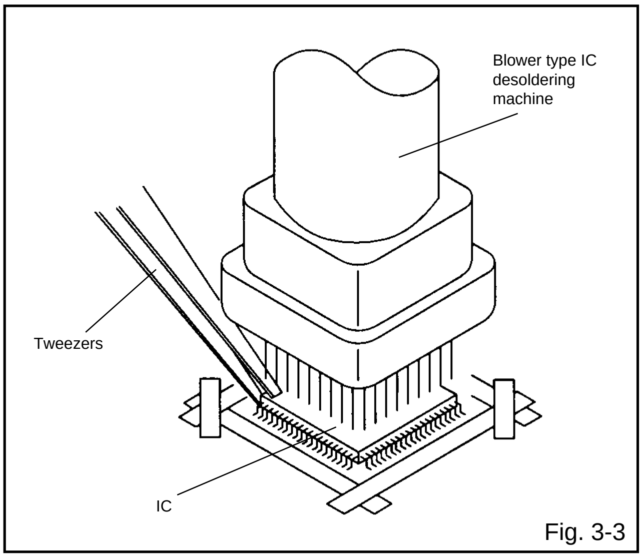

Blower type IC
desoldering
machine
Tweezers
IC

Fig. 3-3

4. Peel off the Masking Tape.

5. Absorb the solder left on the pattern using the Braided Shield Wire. **(Refer to Fig. 3-4.)**

   **NOTE**

   Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.

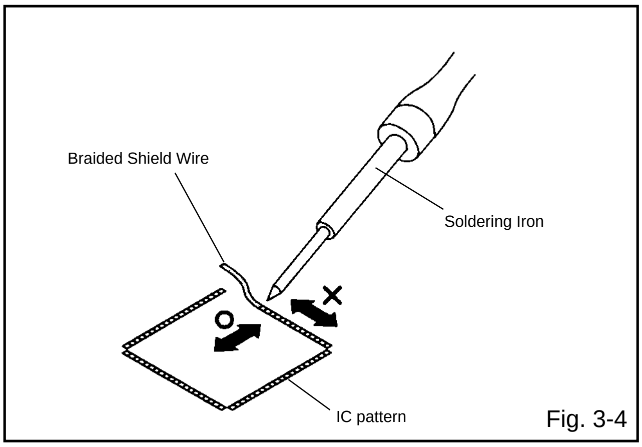

Braided Shield Wire
Soldering Iron
○
×
IC pattern

Fig. 3-4

# DISASSEMBLY INSTRUCTIONS

## INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. **(Refer to Fig. 3-5.)**

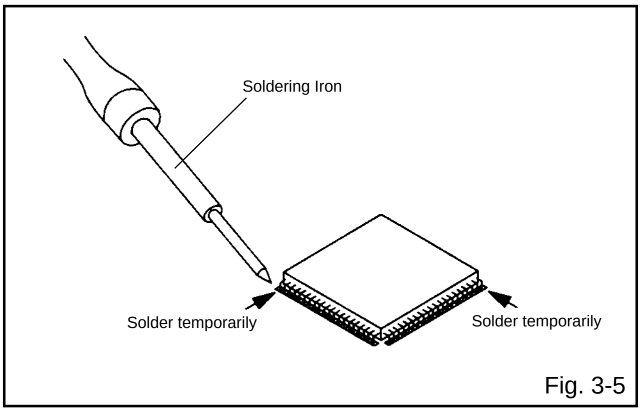

Soldering Iron
Solder temporarily
Solder temporarily

Fig. 3-5

2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. **(Refer to Fig. 3-6.)**

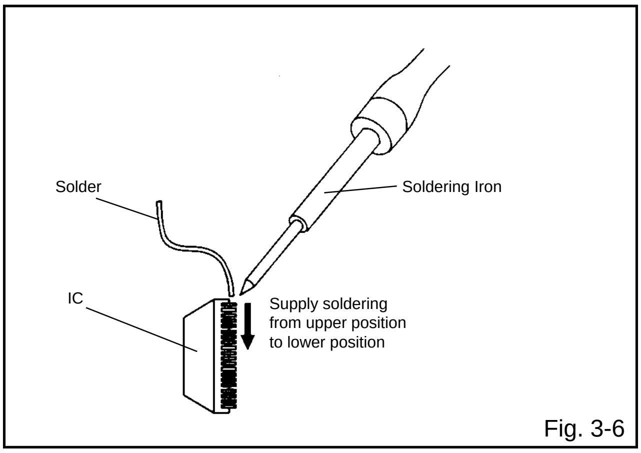

Solder
Soldering Iron
IC
Supply soldering
from upper position
to lower position

Fig. 3-6

3. Absorb the solder left on the lead using the Braided Shield Wire. **(Refer to Fig. 3-7.)**

**NOTE**

Do not absorb the solder to excess.

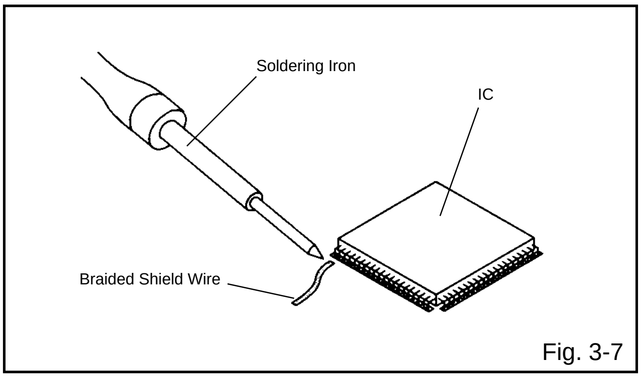

Soldering Iron
IC
Braided Shield Wire

Fig. 3-7

4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. **(Refer to Fig. 3-8.)**

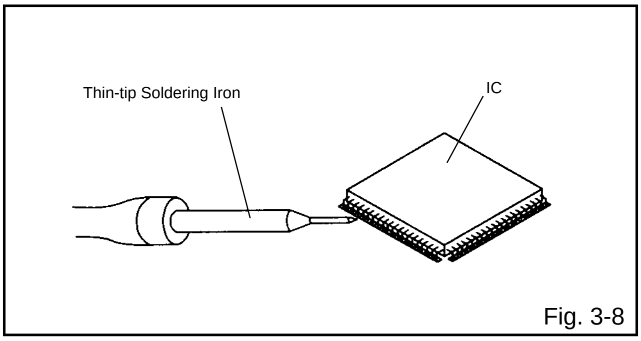

Thin-tip Soldering Iron
IC

Fig. 3-8

5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass.
   Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

   **NOTE**

   When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

# SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than the standard time in the appropriate condition. (See below chart.)

| Set Condition | Set Key | Remocon Key | Standard Time | Operations |
|---|---|---|---|---|
| TV mode | VOL. DOWN (Minimum) | 0 | 2 sec. | Releasing of V-CHIP PASSWORD. |
| TV mode | VOL. DOWN (Minimum) | 1 | 2 sec. | Initialization of factory TV data.<br>NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours. |
| DVD mode (No disc) | VOL. DOWN (Minimum) | 4 | 2 sec. | Initialization of factory DVD data.<br>NOTE: Do not use this for normal servicing. |
| TV mode | VOL. DOWN (Minimum) | 6 | 2 sec. | Can be checked of the INITIAL DATA of MEMORY IC.<br>Refer to the "WHEN REPLACING EEPROM (MEMORY) IC". |
| ALL mode | VOL. DOWN (Minimum) | 8 | 2 sec. | Check of the SUM DATA, POWER ON total hours, MICON VERSION and DIGITAL TV MICON FIRMWARE on the screen.<br>Refer to the "WHEN REPLACING EEPROM (MEMORY) IC". |
| ALL mode | VOL. DOWN (Minimum) | 9 | 2 sec. | Display of the Adjustment MENU on the screen.<br>Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment). |
| DVD mode (No disc) | STOP | 7 | 2 sec. | Releasing of PARENTAL LOCK.<br>Refer to the “PARENTAL CONTROL - RATING LEVEL”. |

# WHEN REPLACING EEPROM (MEMORY) IC

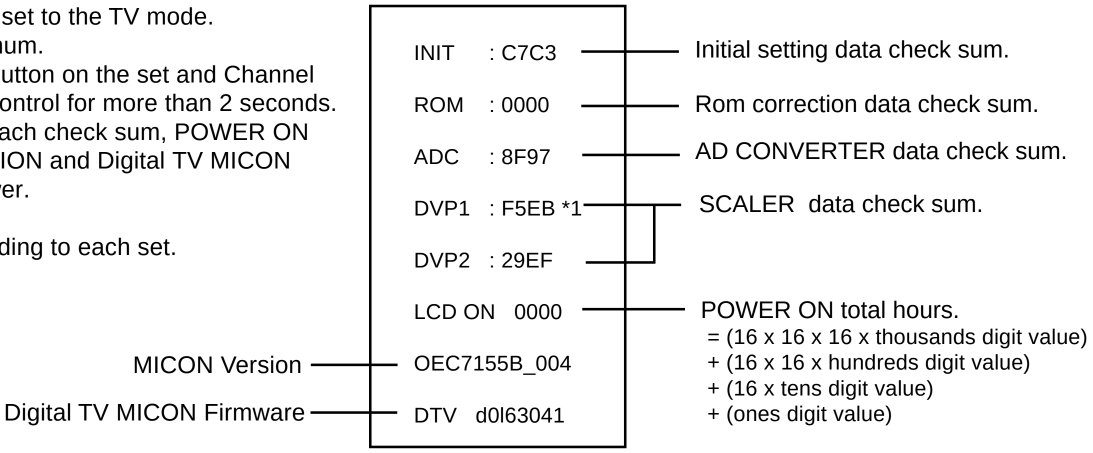
## CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS, MICON VERSION AND DIGITAL TV MICON FIRMWARE

Initial total of MEMORY IC, POWER ON total hours, MICON VERSION and Digital TV MICON Firmware can be checked on the screen. Total hours are displayed in 16 system of notation.

**NOTE: If you set a factory initialization, the total hours is reset to "0".**
**Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.**

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, POWER ON total hours, MICON VERSION and Digital TV MICON Firmware, turn off the power.

   *1 DVP1 is different according to each set.



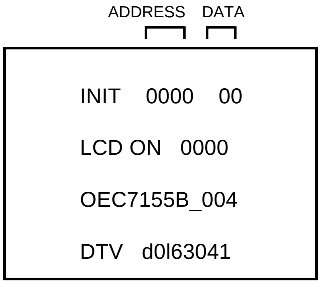
INIT : C7C3 — Initial setting data check sum.
ROM : 0000 — Rom correction data check sum.
ADC : 8F97 — AD CONVERTER data check sum.
DVP1 : F5EB *1 — SCALER data check sum.
DVP2 : 29EF
LCD ON 0000 — POWER ON total hours.
= (16 x 16 x 16 x thousands digit value)
+ (16 x 16 x hundreds digit value)
+ (16 x tens digit value)
+ (ones digit value)
MICON Version — OEC7155B_004
Digital TV MICON Firmware — DTV d0l63041

**FIG. 1**

## CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds. ADDRESS and DATA should appear as FIG 2.



INIT 0000 00
LCD ON 0000
OEC7155B_004
DTV d0l63041

**FIG. 2**

4. ADDRESS is now selected and should "blink". Using the UP/DOWN buton on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press RIGHT/LEFT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing RIGHT/LEFT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

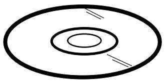
**After the data input, set to the initializing of shipping.**

10. Turn POWER on.
11. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
12. After the finishing of the initializing of shipping, the unit will turn off automatically.

The unit will now have the correct DATA for the new MEMORY IC.

# RE-WRITE FOR DIGITAL SOFT FIRMWARE

JG176 USA HD DTV ROM DISC



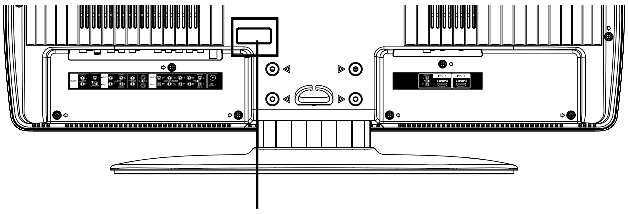
| Ref. No. | Part No. | Parts Name | Remarks |
|---|---|---|---|
| JG176 | APJG176095 | USA HD DTV ROM DISC | Up-Date of the Firmware |

**NOTE:** The operating manual for Re-writing is included in USA HD DTV ROM DISC (JG176).

**Prepare the following tools for Up-Date of the Firmware.**

1 Computer of WINDOWS2000
2 USB Flash Memory **(Use only SanDisk Cruzer Mini USB Flash Drive 256Mb)**

## SET (REAR)



# ELECTRICAL ADJUSTMENTS

## 1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

**CAUTION**

- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease **(YG6260M)** on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

**Prepare the following measurement tools for electrical adjustments.**

1. Pattern Generator

## 2. BASIC ADJUSTMENTS

### On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button **(9)** on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 2-1**.

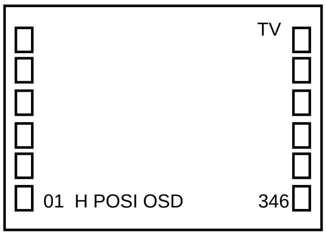


Fig. 2-1

3. Use the UP/DOWN button or Channel button **(0-9)** on the remote control to select the options shown in **Fig. 2-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for AV, YUV, HDMI mode, press the INPUT button on the remote control to set to the AV, YUV, HDMI mode. Press the VOL.DOWN button on the set and the channel **(9)** on the remote control for more than 2 seconds.

| NO. | FUNCTION | NO. | FUNCTION |
|---|---|---|---|
| 01 | H POSI OSD | 22 | H POSI 60Hz |
| 02 | V POSI OSD | 24 | V POSI 60Hz |
| 03 | R DRIVE (N) | 25 | BAK LIGHT CENT |
| 04 | R CUTOFF (N) | 26 | BAK LIGHT MAX |
| 05 | G DRIVE (N) | 27 | BAK LIGHT MIN |
| 06 | G CUTOFF (N) | 28 | BRIGHT CENT |
| 07 | B DRIVE (N) | 29 | BRIGHT MAX |
| 08 | B CUTOFF (N) | 30 | BRIGHT MIN |
| 09 | R DRIVE (C) | 31 | TINT |
| 10 | R CUTOFF (C) | 35 | CONTRAST CENTER |
| 11 | G DRIVE (C) | 36 | CONTRAST MAX |
| 12 | G CUTOFF (C) | 37 | CONTRAST MIN |
| 13 | B DRIVE (C) | 38 | COLOR CENT |
| 14 | B CUTOFF (C) | 39 | COLOR MAX |
| 15 | R DRIVE (W) | 40 | COLOR MIN |
| 16 | R CUTOFF (W) | 63 | CONTRAST 40 |
| 17 | G DRIVE (W) | 64 | BRIGHT (3F54) |
| 18 | G CUTOFF (W) | 65 | CONTRAST (3F55) |
| 19 | B DRIVE (W) | 66 | SRC TOP |
| 20 | B CUTOFF (W) | 67 | DFEA VIMGVT |

Fig. 2-2

### 2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(03)** on the remote control to select “R DRIVE (N)”.
6. Press the UP/DOWN button on the remote control to select the “R CUTOFF (N)”, “B DRIVE (N)”, “B CUTOFF (N)”, “R DRIVE (C)”, “R CUTOFF (C)”, “B DRIVE (C)”, “B CUTOFF (C)”, “R DRIVE (W)”, “R CUTOFF (W)”, “B DRIVE (W)” and “B CUTOFF (W)”.
7. Adjust the RIGHT/LEFT button on the remote control to whiten the R CUTOFF (N), B DRIVE (N), B CUTOFF (N), R DRIVE (C), R CUTOFF (C), B DRIVE (C), B CUTOFF (C), R DRIVE (W), R CUTOFF (W), B DRIVE (W) and B CUTOFF (W) at each step tone sections equally.
8. Perform the above adjustments 5 and 6 until the white color is looked like a white.

# ELECTRICAL ADJUSTMENTS

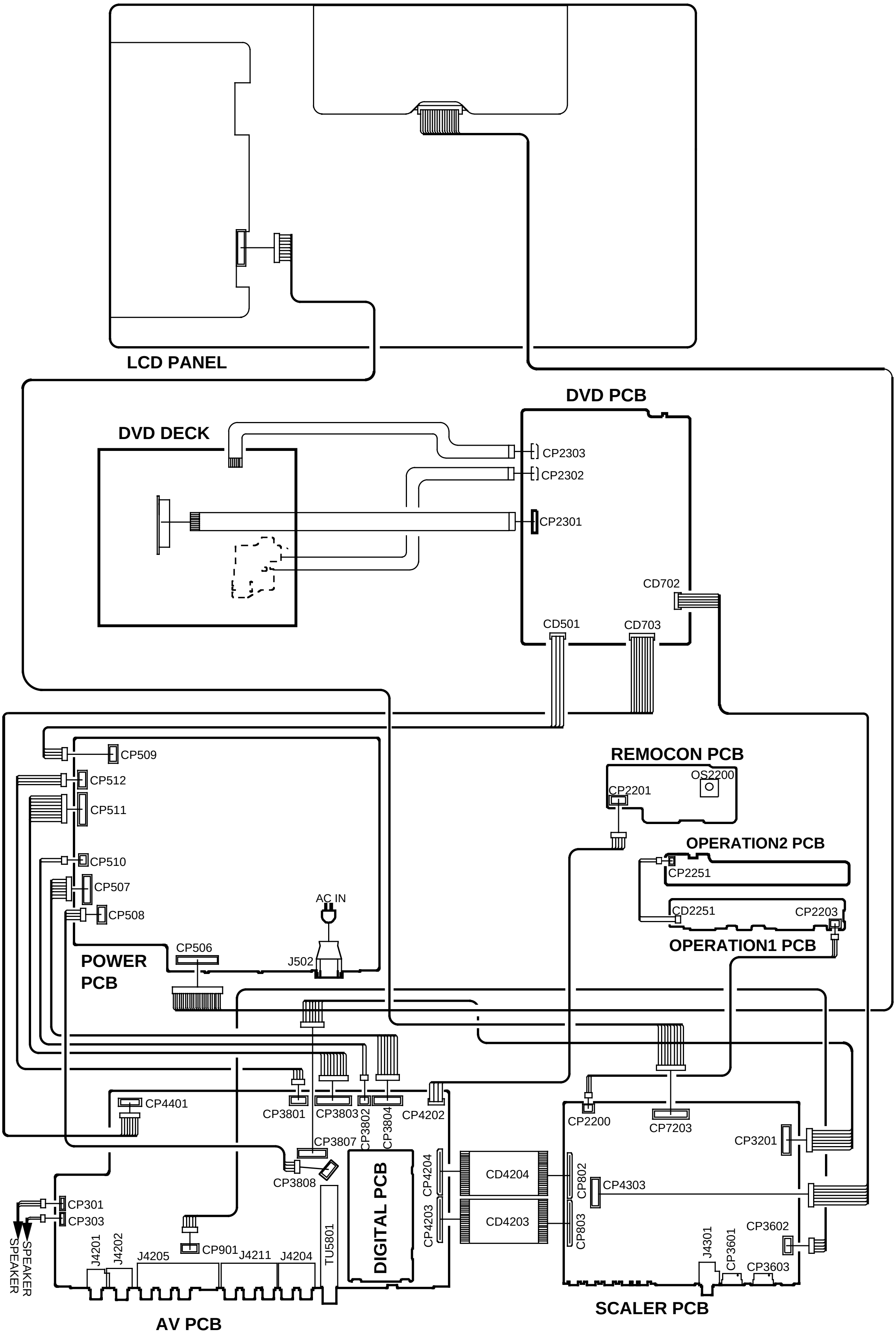
## 2-2: Confirmation of Fixed Value (Step No.)

Please check if the fixed values of each of the adjustment items are set correctly referring below. **(TV/AV/YUV/HD-MI)**

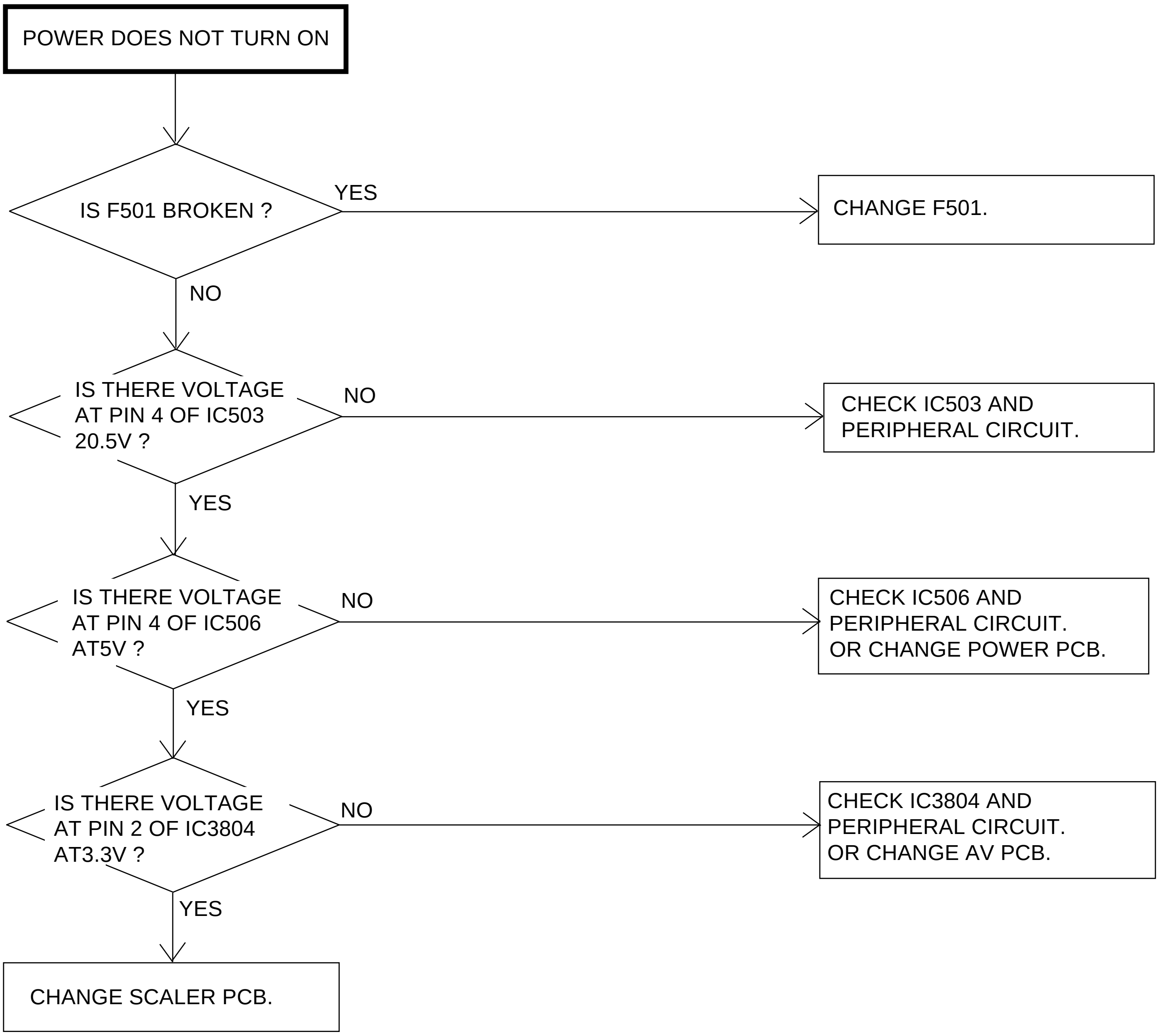
| NO. | FUNCTION | | | | | YUV | | | | HD-MI | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TV | TV 720p | AV | AV (S) | 480i | 480p | 720p | 1080i | 480i | 480p | 720p | 1080i | VGA |
| | | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. | Step No. |
| 1 | H POSI OSD | 346 | 346 | 346 | 346 | 346 | 346 | 346 | 346 | 346 | 346 | 346 | 346 | 346 |
| 2 | V POSI OSD | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 |
| 3 | R DRIVE (N) | --- | 137 | --- | --- | 138 | 136 | 137 | 137 | 137 | 137 | 137 | 137 | 137 |
| 4 | G  CUTOFF (N) | --- | 129 | --- | --- | 127 | 130 | 129 | 129 | 130 | 130 | 130 | 130 | 130 |
| 5 | G DRIVE (N) | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 6 | G CUTOFF (N) | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 7 | B DRIVE (N) | --- | 108 | --- | --- | 107 | 106 | 108 | 108 | 107 | 107 | 107 | 107 | 107 |
| 8 | B  CUTOFF (N) | --- | 126 | --- | --- | 127 | 128 | 126 | 126 | 127 | 127 | 127 | 127 | 127 |
| 9 | R DRIVE (C) | --- | 134 | --- | --- | 134 | 135 | 134 | 134 | 135 | 135 | 135 | 135 | 135 |
| 10 | R CUTOFF (C) | --- | 129 | --- | --- | 127 | 128 | 129 | 129 | 128 | 128 | 128 | 128 | 128 |
| 11 | G DRIVE (C) | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 12 | G CUTOFF (C) | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 13 | B DRIVE (C) | --- | 130 | --- | --- | 128 | 129 | 130 | 130 | 130 | 130 | 130 | 130 | 130 |
| 14 | B CUTOFF (C) | --- | 125 | --- | --- | 127 | 125 | 125 | 125 | 124 | 124 | 124 | 124 | 124 |
| 15 | R DRIVE (W) | --- | 159 | --- | --- | 160 | 160 | 159 | 159 | 159 | 159 | 159 | 159 | 159 |
| 16 | R CUTOFF (W) | --- | 128 | --- | --- | 127 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 17 | G DRIVE (W) | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 18 | G CUTOFF (W) | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 19 | B DRIVE (W) | --- | 81 | --- | --- | 82 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| 20 | B  CUTOFF (W) | --- | 128 | --- | --- | 127 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 22 | H POSI 60Hz | 276 | 320 | 276 | 276 | 276 | 134 | 322 | 122 | 266 | 134 | 284 | 228 | 156 |
| 22 | H POSI (SIDE BAR) | 284 | 322 | 284 | 284 | 284 | 140 | --- | --- | 274 | 140 | --- | --- | 160 |
| 24 | V POSI 60Hz | 23 | 63 | 23 | 23 | 34 | 34 | 55 | 38 | 35 | 34 | 54 | 38 | 34 |
| 25 | BAK LIGHT CENT | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| 26 | BAK LIGHT MAX | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 |
| 27 | BAK LIGHT MIN | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 28 | BRIGHT CENT | 126 | 126 | 126 | 126 | 126 | 126 | 126 | 126 | 126 | 126 | 126 | 126 | 126 |
| 29 | BRIGHT MAX | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 |
| 30 | BRIGHT MIN | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 31 | TINT | 108 | 128 | 108 | 110 | 115 | 122 | 122 | 122 | 122 | 132 | 131 | 132 | 132 |
| 35 | CONTRAST CENTER(N) | --- | 108 | --- | --- | 163 | 107 | 108 | 108 | 113 | 113 | 113 | 113 | 113 |
| 36 | CONTRAST MAX(N) | --- | 148 | --- | --- | 223 | 146 | 148 | 148 | 155 | 155 | 155 | 155 | 155 |
| 37 | CONTRAST MIN(N) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 38 | COLOR CENT | 90 | 115 | 100 | 96 | 83 | 115 | 115 | 115 | 77 | 77 | 77 | 74 | 77 |
| 39 | COLOR MAX | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 |
| 40 | COLOR MIN | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 63 | CONTRAST 40 | --- | 142 | --- | --- | 215 | 140 | 142 | 142 | 149 | 149 | 149 | 149 | 149 |
| 64 | BRIGHT (3F54) | --- | 128 | --- | --- | 120 | 126 | 128 | 128 | 113 | 113 | 113 | 113 | 113 |
| 65 | CONTRAST (3F55) | --- | 180 | --- | 140 | 182 | 180 | 180 | 122 | 122 | 122 | 122 | 122 | 122 |
| 66 | SRC TOP(STRECH) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 66 | SRC TOP(SIDE BAR) | 20 | 20 | 20 | 20 | 20 | 20 | --- | --- | 20 | 20 | --- | --- | 20 |
| 66 | SRC TOP(CINEMA WIDE1) | 18 | 20 | 18 | 18 | 20 | 20 | --- | --- | 20 | 20 | --- | --- | 20 |
| 66 | SRC TOP(ZOOM) | 43 | 43 | 43 | 43 | 43 | 43 | --- | --- | 43 | 43 | --- | --- | 43 |
| 66 | SRC TOP(S.STRECH) | 26 | 26 | 26 | 26 | 26 | 26 | --- | --- | 26 | 26 | --- | --- | 26 |
| 67 | DEFA VIMGVT(STRECH) | 20 | 25 | 20 | 20 | 20 | 43 | 26 | 24 | 20 | 44 | 32 | 24 | 42 |
| 67 | DEFA VIMGVT(SIDE BAR) | 20 | 25 | 20 | 20 | 20 | 43 | --- | --- | 20 | 43 | --- | --- | 42 |
| 67 | DEFA VIMGVT(CINEMA WIDE1) | 20 | 28 | 20 | 20 | 20 | 44 | --- | --- | 20 | 44 | --- | --- | 42 |
| 67 | DEFA VIMGVT(ZOOM) | 50 | 28 | 50 | 50 | 50 | 104 | --- | --- | 50 | 104 | --- | --- | 102 |
| 67 | DEFA VIMGVT(S.STRECH) | 26 | 25 | 26 | 26 | 26 | 56 | --- | --- | 26 | 56 | --- | --- | 55 |

# ELECTRICAL ADJUSTMENTS

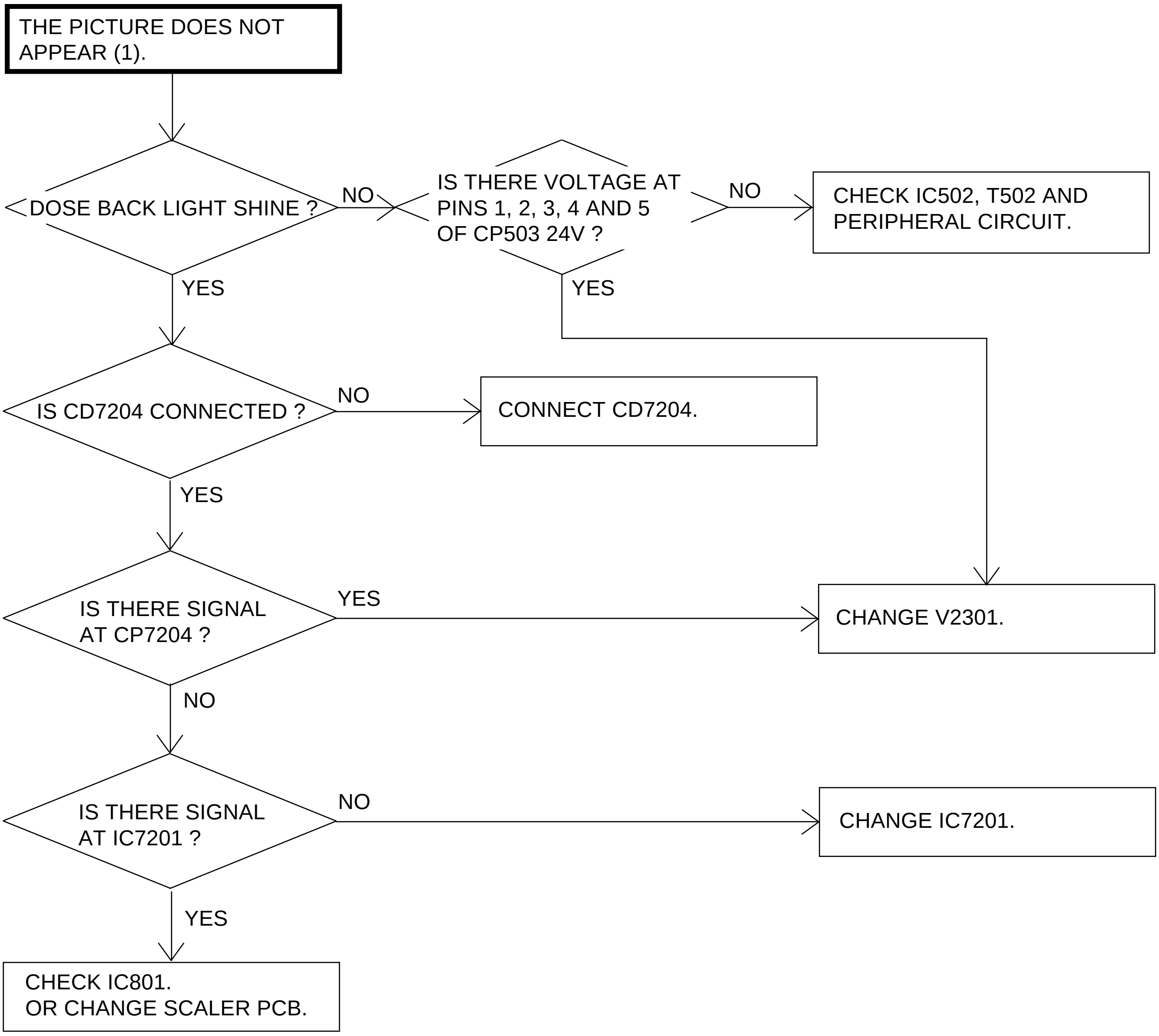
## 3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)


LCD PANEL
DVD PCB
DVD DECK
CP2303
CP2302
CP2301
CD702
CD501
CD703
REMOCON PCB
OS2200
CP2201
OPERATION2 PCB
CP2251
CD2251
CP2203
OPERATION1 PCB
CP509
CP512
CP511
CP510
CP507
CP508
AC IN
CP506
J502
POWER PCB
CP4401
CP3801
CP3803
CP3802
CP3804
CP4202
CP3807
CP3808
CP4204
CP4203
CD4204
CD4203
CP802
CP803
CP4303
CP2200
CP7203
CP3201
CP3602
CP3601
CP3603
J4301
SCALER PCB
CP301
CP303
SPEAKER
SPEAKER
J4201
J4202
J4205
CP901
J4211
J4204
TU5801
DIGITAL PCB
AV PCB

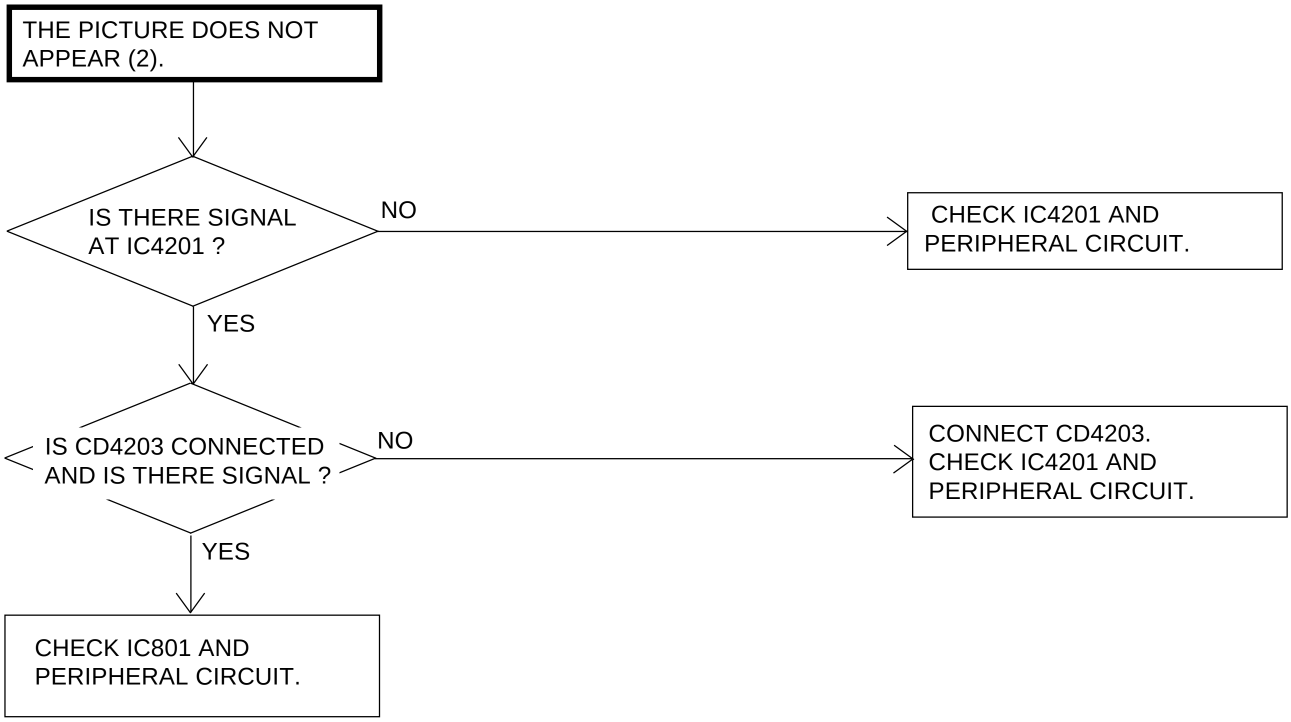
# TROUBLESHOOTING GUIDE


POWER DOES NOT TURN ON
IS F501 BROKEN ?
YES
CHANGE F501.
NO
IS THERE VOLTAGE AT PIN 4 OF IC503 20.5V ?
NO
CHECK IC503 AND PERIPHERAL CIRCUIT.
YES
IS THERE VOLTAGE AT PIN 4 OF IC506 AT5V ?
NO
CHECK IC506 AND PERIPHERAL CIRCUIT. OR CHANGE POWER PCB.
YES
IS THERE VOLTAGE AT PIN 2 OF IC3804 AT3.3V ?
NO
CHECK IC3804 AND PERIPHERAL CIRCUIT. OR CHANGE AV PCB.
YES
CHANGE SCALER PCB.

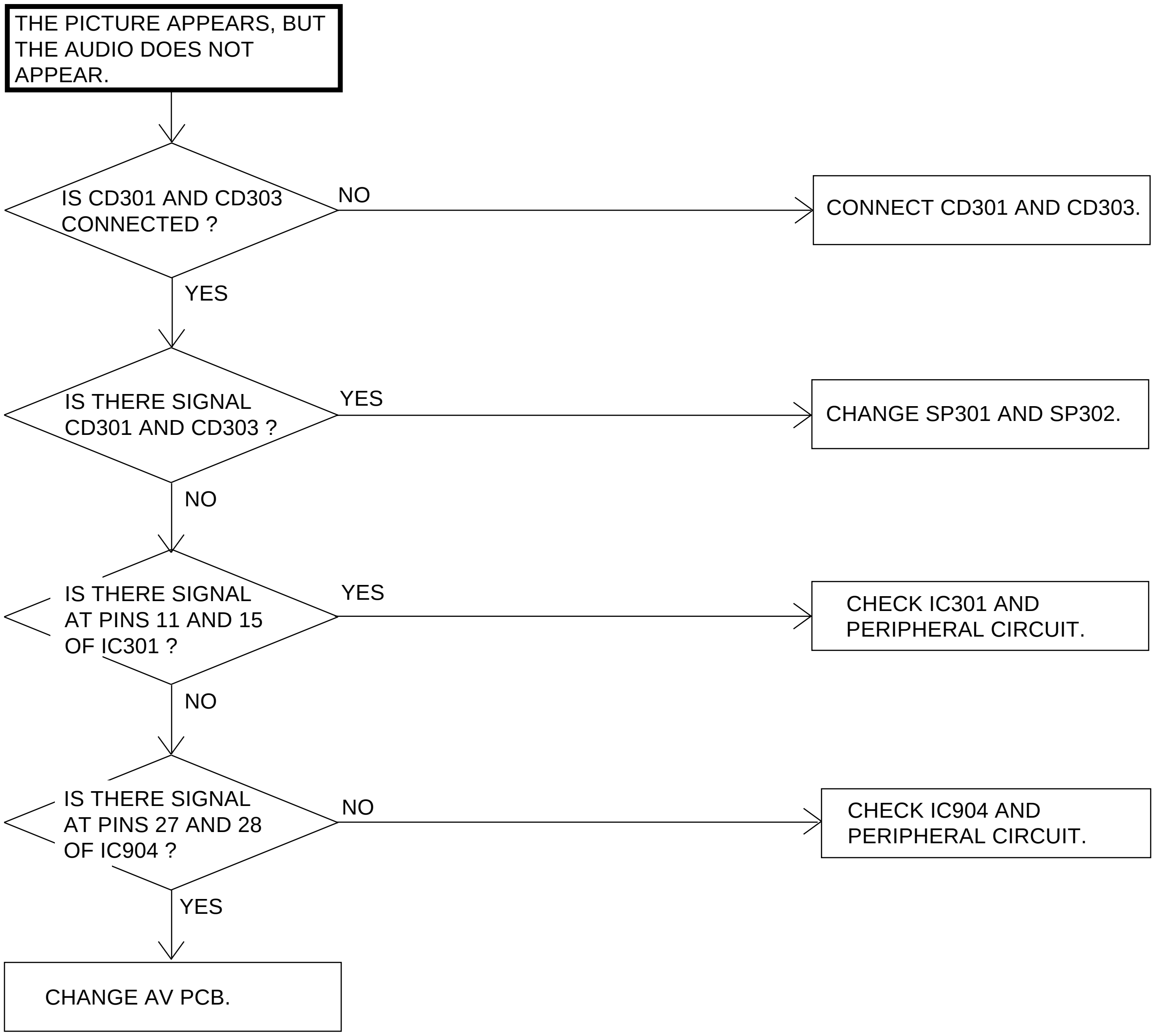
# TROUBLESHOOTING GUIDE


THE PICTURE DOES NOT APPEAR (1).
DOSE BACK LIGHT SHINE ?
NO
IS THERE VOLTAGE AT PINS 1, 2, 3, 4 AND 5 OF CP503 24V ?
NO
CHECK IC502, T502 AND PERIPHERAL CIRCUIT.
YES
YES
IS CD7204 CONNECTED ?
NO
CONNECT CD7204.
YES
IS THERE SIGNAL AT CP7204 ?
YES
CHANGE V2301.
NO
IS THERE SIGNAL AT IC7201 ?
NO
CHANGE IC7201.
YES
CHECK IC801.
OR CHANGE SCALER PCB.

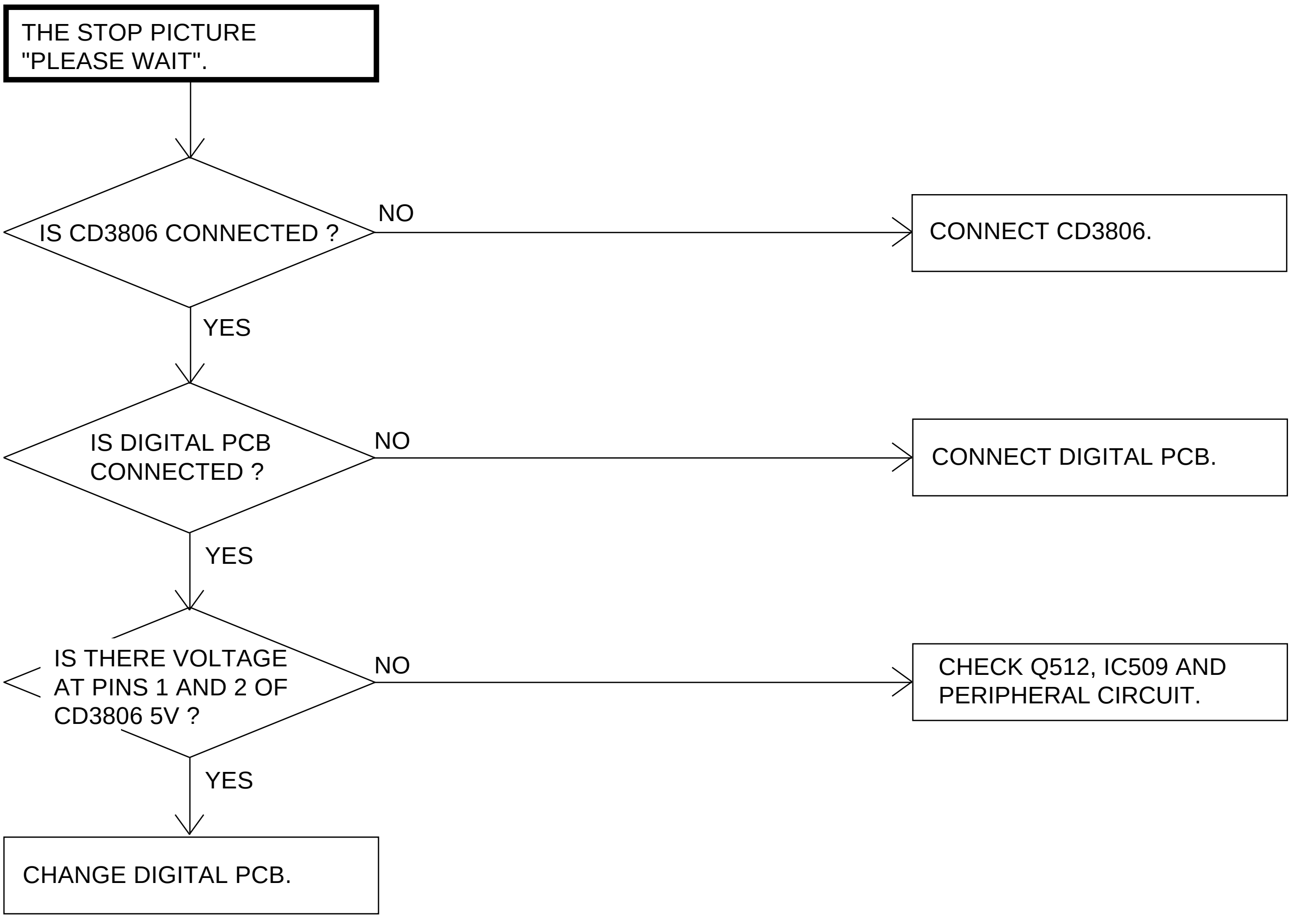
# TROUBLESHOOTING GUIDE


THE PICTURE DOES NOT APPEAR (2).
IS THERE SIGNAL AT IC4201 ?
NO
CHECK IC4201 AND PERIPHERAL CIRCUIT.
YES
IS CD4203 CONNECTED AND IS THERE SIGNAL ?
NO
CONNECT CD4203. CHECK IC4201 AND PERIPHERAL CIRCUIT.
YES
CHECK IC801 AND PERIPHERAL CIRCUIT.

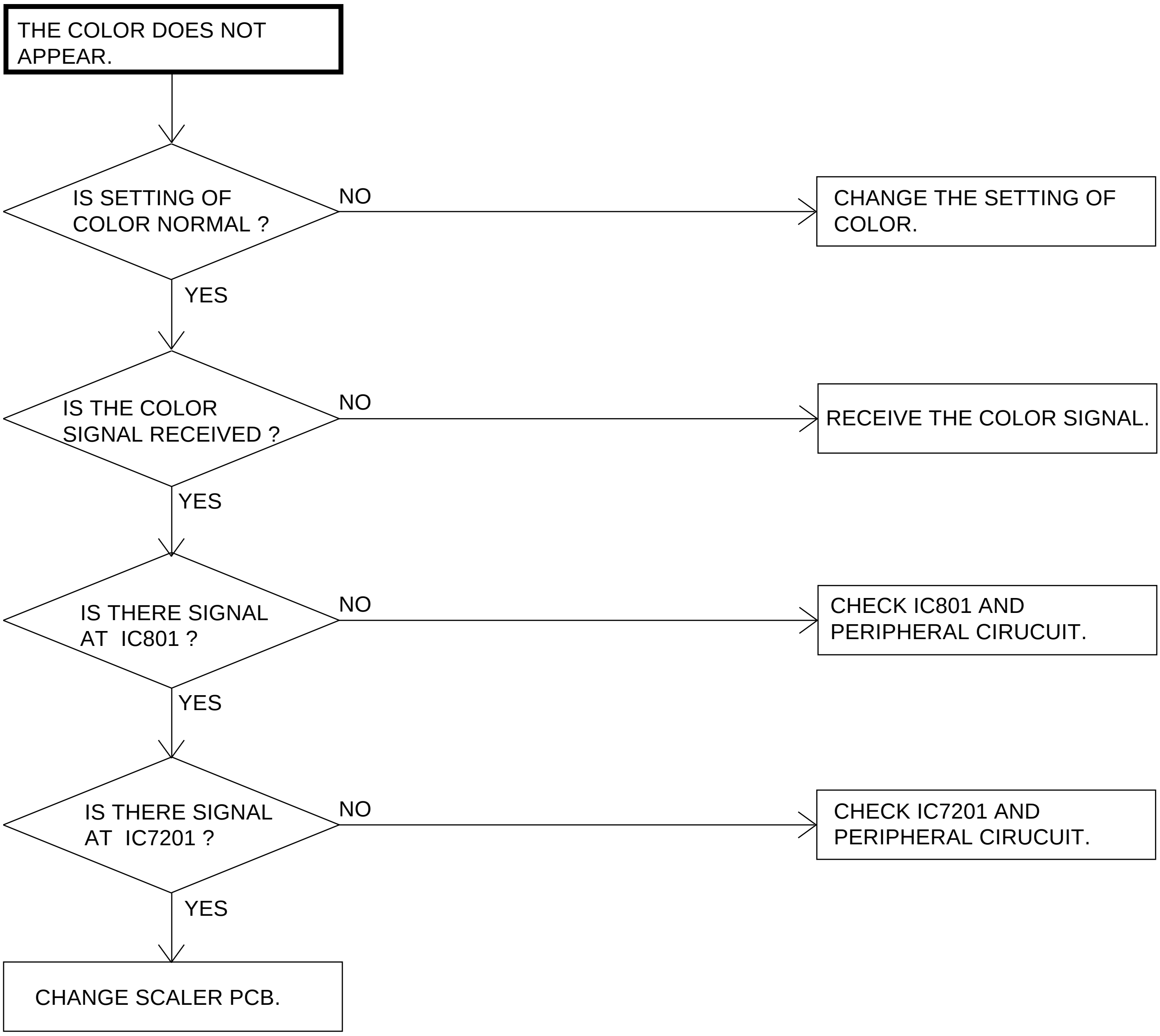
# TROUBLESHOOTING GUIDE


THE PICTURE APPEARS, BUT THE AUDIO DOES NOT APPEAR.
IS CD301 AND CD303 CONNECTED ?
NO
CONNECT CD301 AND CD303.
YES
IS THERE SIGNAL CD301 AND CD303 ?
YES
CHANGE SP301 AND SP302.
NO
IS THERE SIGNAL AT PINS 11 AND 15 OF IC301 ?
YES
CHECK IC301 AND PERIPHERAL CIRCUIT.
NO
IS THERE SIGNAL AT PINS 27 AND 28 OF IC904 ?
NO
CHECK IC904 AND PERIPHERAL CIRCUIT.
YES
CHANGE AV PCB.

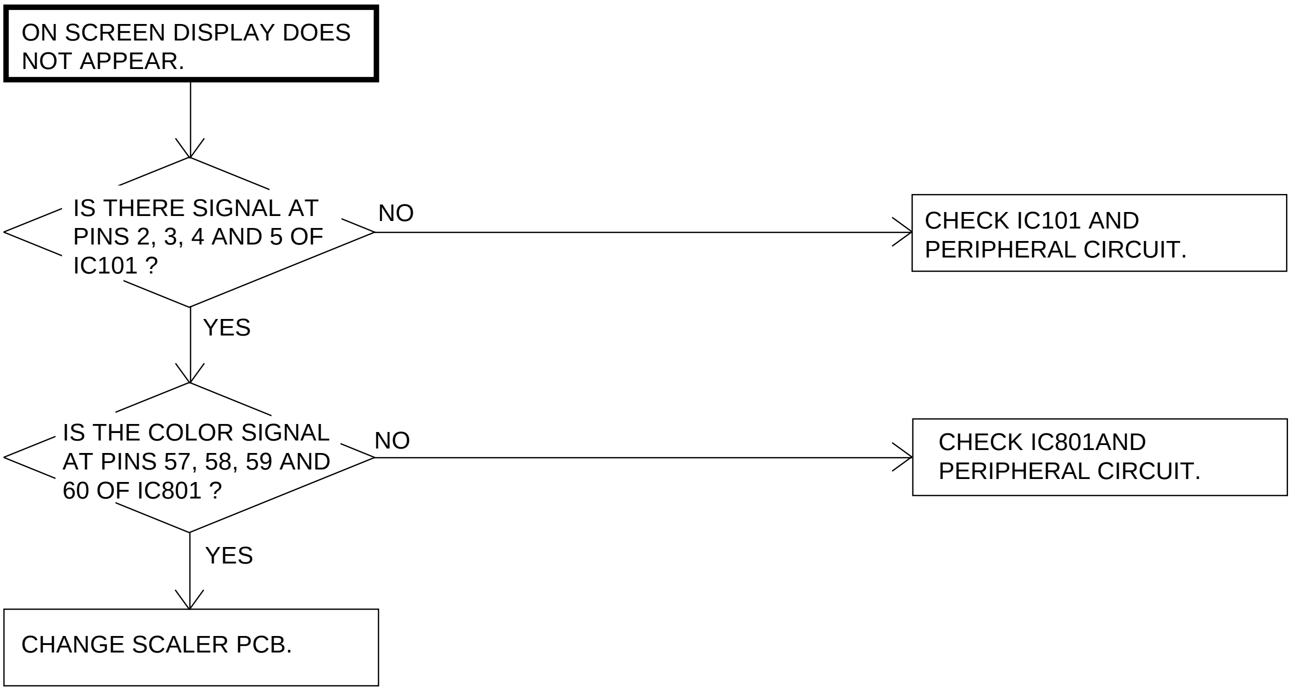
# TROUBLESHOOTING GUIDE


THE STOP PICTURE
"PLEASE WAIT".
IS CD3806 CONNECTED ?
NO
CONNECT CD3806.
YES
IS DIGITAL PCB CONNECTED ?
NO
CONNECT DIGITAL PCB.
YES
IS THERE VOLTAGE AT PINS 1 AND 2 OF CD3806 5V ?
NO
CHECK Q512, IC509 AND PERIPHERAL CIRCUIT.
YES
CHANGE DIGITAL PCB.

# TROUBLESHOOTING GUIDE

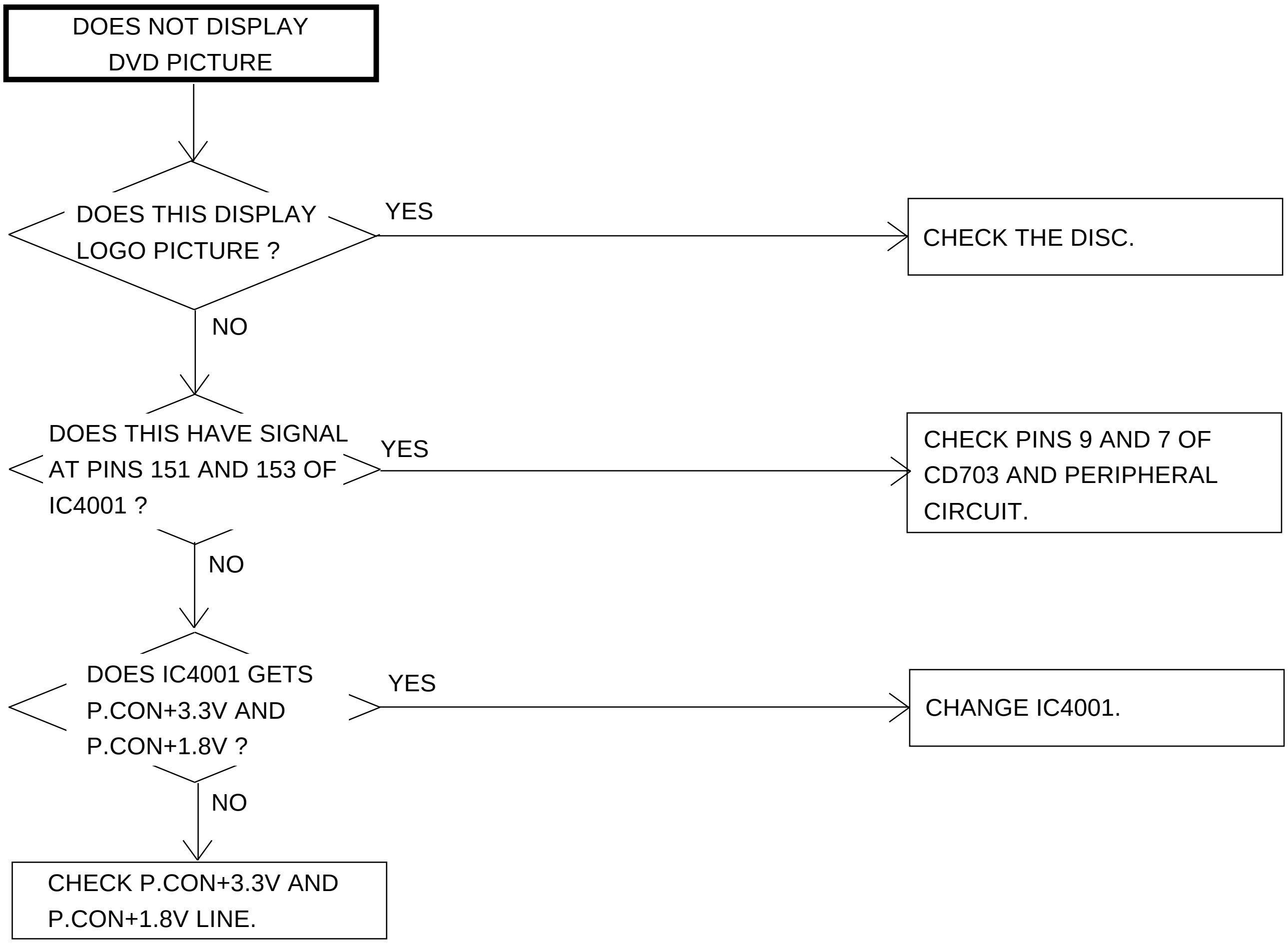

THE COLOR DOES NOT APPEAR.
IS SETTING OF COLOR NORMAL ?
NO
CHANGE THE SETTING OF COLOR.
YES
IS THE COLOR SIGNAL RECEIVED ?
NO
RECEIVE THE COLOR SIGNAL.
YES
IS THERE SIGNAL AT IC801 ?
NO
CHECK IC801 AND PERIPHERAL CIRUCUIT.
YES
IS THERE SIGNAL AT IC7201 ?
NO
CHECK IC7201 AND PERIPHERAL CIRUCUIT.
YES
CHANGE SCALER PCB.

# TROUBLESHOOTING GUIDE

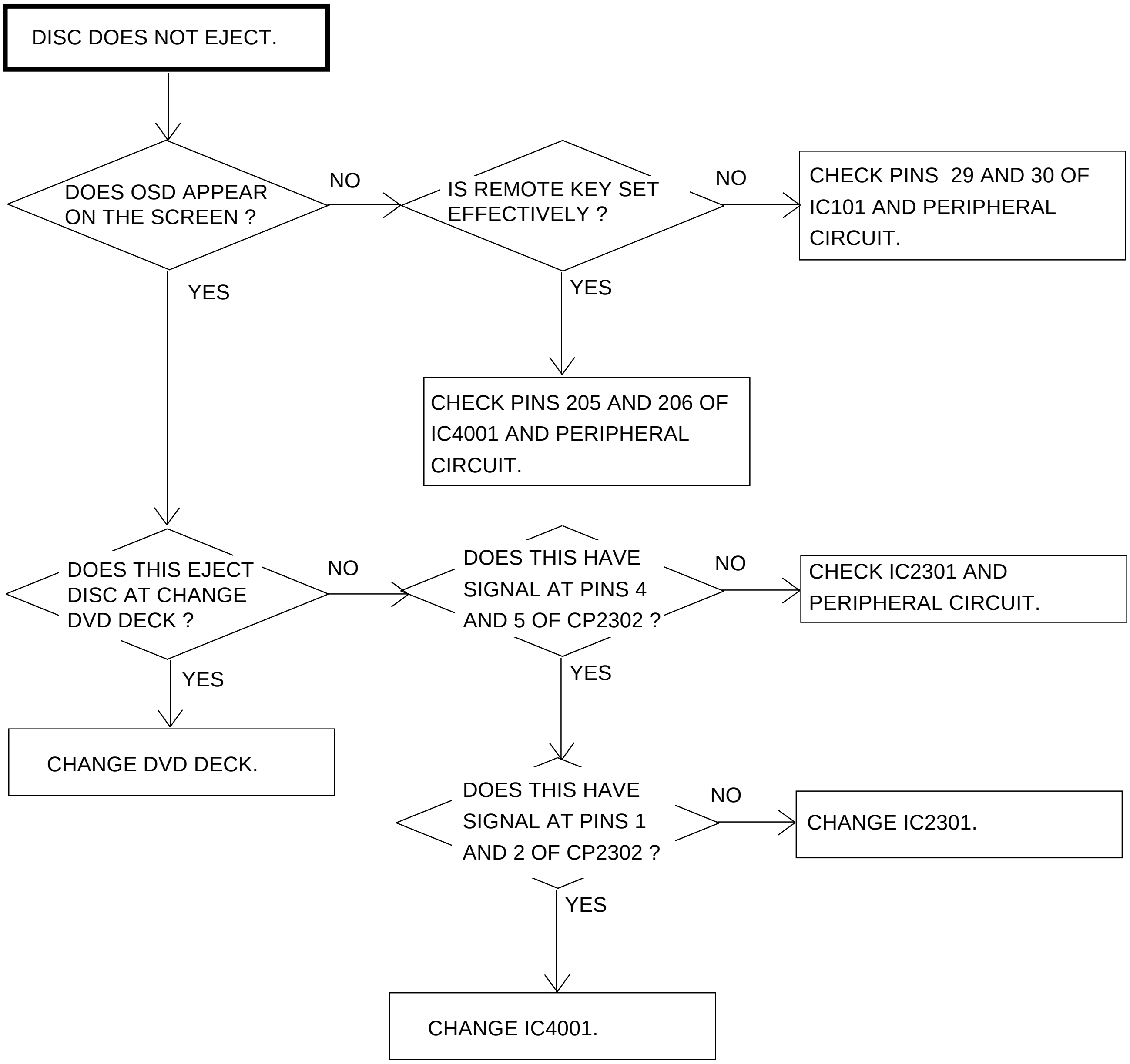

ON SCREEN DISPLAY DOES NOT APPEAR.
IS THERE SIGNAL AT PINS 2, 3, 4 AND 5 OF IC101 ?
NO
CHECK IC101 AND PERIPHERAL CIRCUIT.
YES
IS THE COLOR SIGNAL AT PINS 57, 58, 59 AND 60 OF IC801 ?
NO
CHECK IC801AND PERIPHERAL CIRCUIT.
YES
CHANGE SCALER PCB.

# TROUBLESHOOTING GUIDE

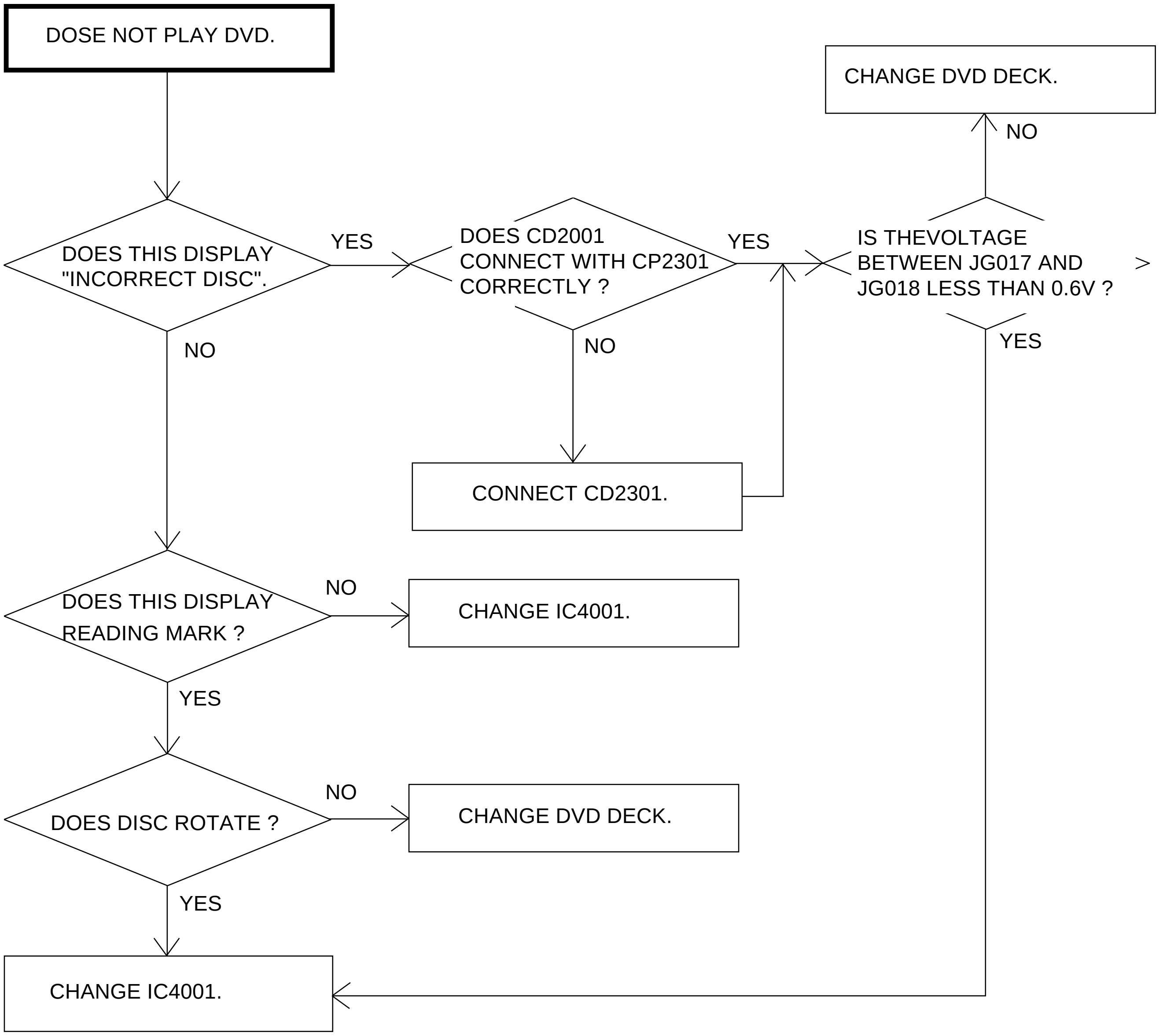
## (DVD SECTION)


DOES NOT DISPLAY DVD PICTURE
DOES THIS DISPLAY LOGO PICTURE ?
YES
CHECK THE DISC.
NO
DOES THIS HAVE SIGNAL AT PINS 151 AND 153 OF IC4001 ?
YES
CHECK PINS 9 AND 7 OF CD703 AND PERIPHERAL CIRCUIT.
NO
DOES IC4001 GETS P.CON+3.3V AND P.CON+1.8V ?
YES
CHANGE IC4001.
NO
CHECK P.CON+3.3V AND P.CON+1.8V LINE.

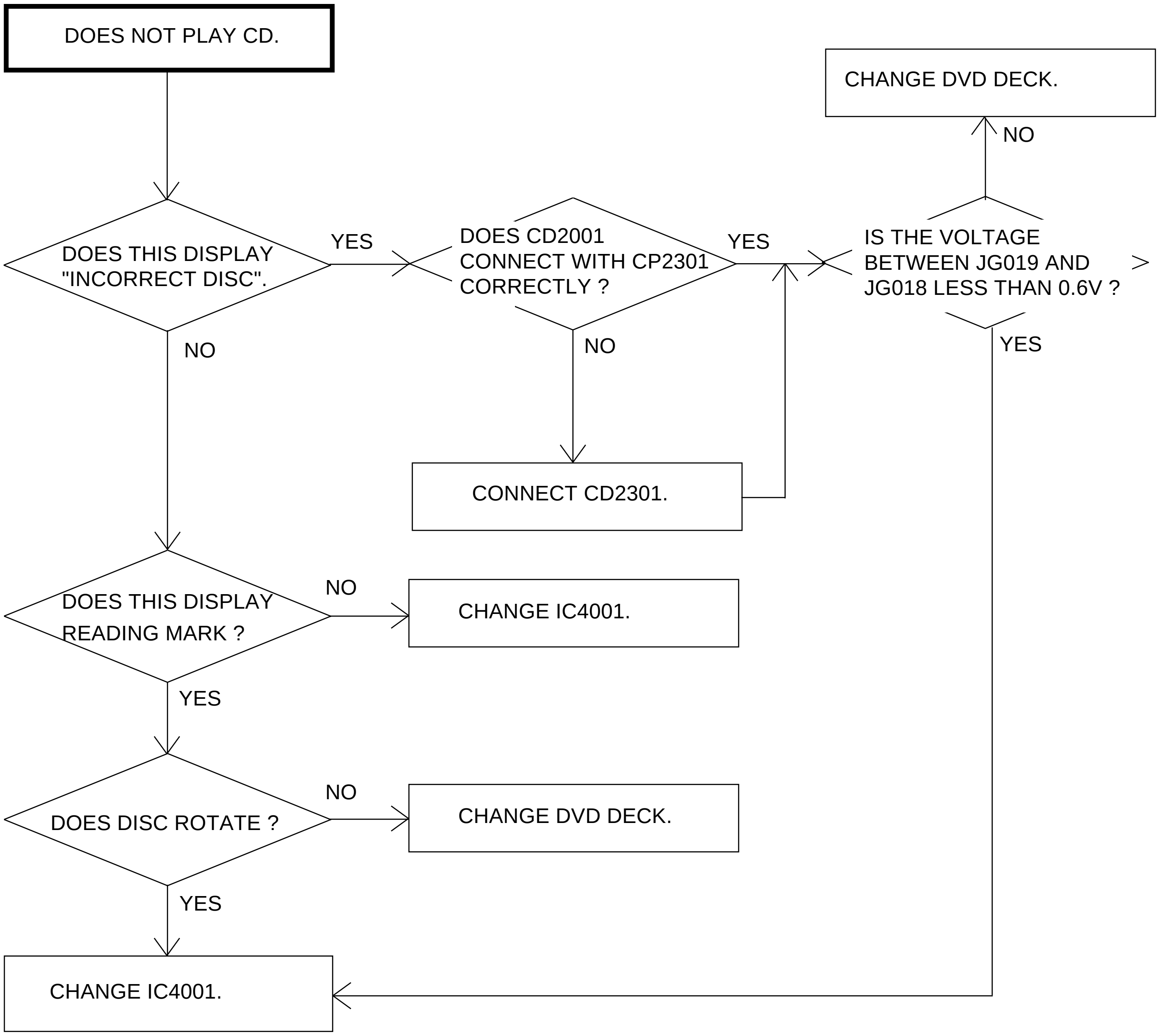
# TROUBLESHOOTING GUIDE


DISC DOES NOT EJECT.
DOES OSD APPEAR ON THE SCREEN ?
NO
IS REMOTE KEY SET EFFECTIVELY ?
NO
CHECK PINS 29 AND 30 OF IC101 AND PERIPHERAL CIRCUIT.
YES
YES
CHECK PINS 205 AND 206 OF IC4001 AND PERIPHERAL CIRCUIT.
DOES THIS EJECT DISC AT CHANGE DVD DECK ?
NO
DOES THIS HAVE SIGNAL AT PINS 4 AND 5 OF CP2302 ?
NO
CHECK IC2301 AND PERIPHERAL CIRCUIT.
YES
YES
CHANGE DVD DECK.
DOES THIS HAVE SIGNAL AT PINS 1 AND 2 OF CP2302 ?
NO
CHANGE IC2301.
YES
CHANGE IC4001.

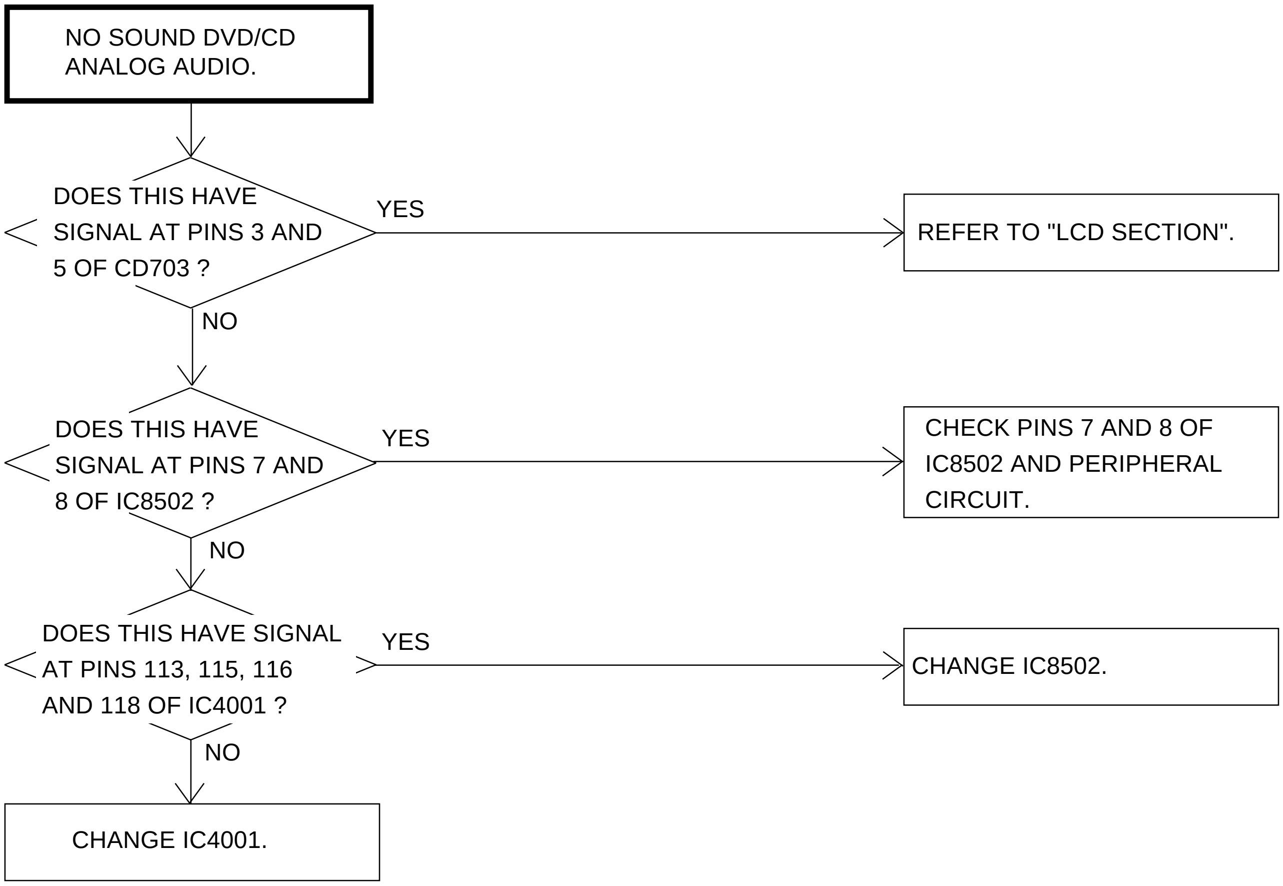
# TROUBLESHOOTING GUIDE

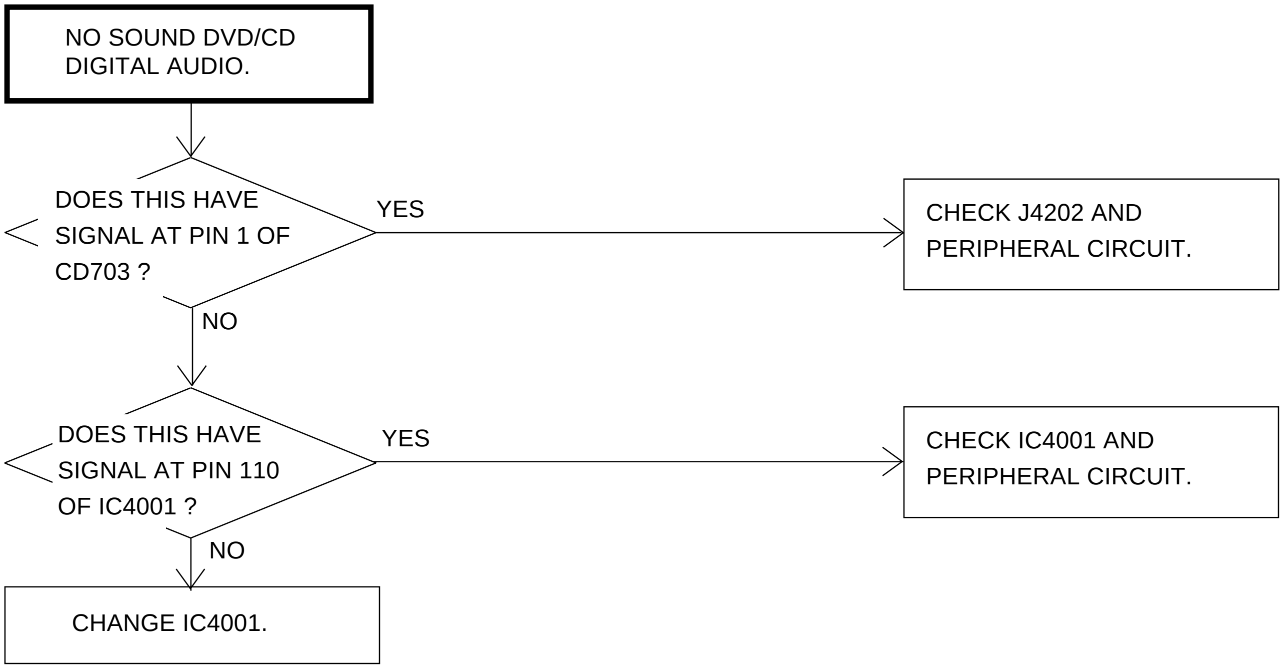

DOSE NOT PLAY DVD.
CHANGE DVD DECK.
NO
DOES THIS DISPLAY "INCORRECT DISC".
YES
DOES CD2001 CONNECT WITH CP2301 CORRECTLY ?
YES
IS THEVOLTAGE BETWEEN JG017 AND JG018 LESS THAN 0.6V ?
NO
NO
YES
CONNECT CD2301.
DOES THIS DISPLAY READING MARK ?
NO
CHANGE IC4001.
YES
DOES DISC ROTATE ?
NO
CHANGE DVD DECK.
YES
CHANGE IC4001.

# TROUBLESHOOTING GUIDE

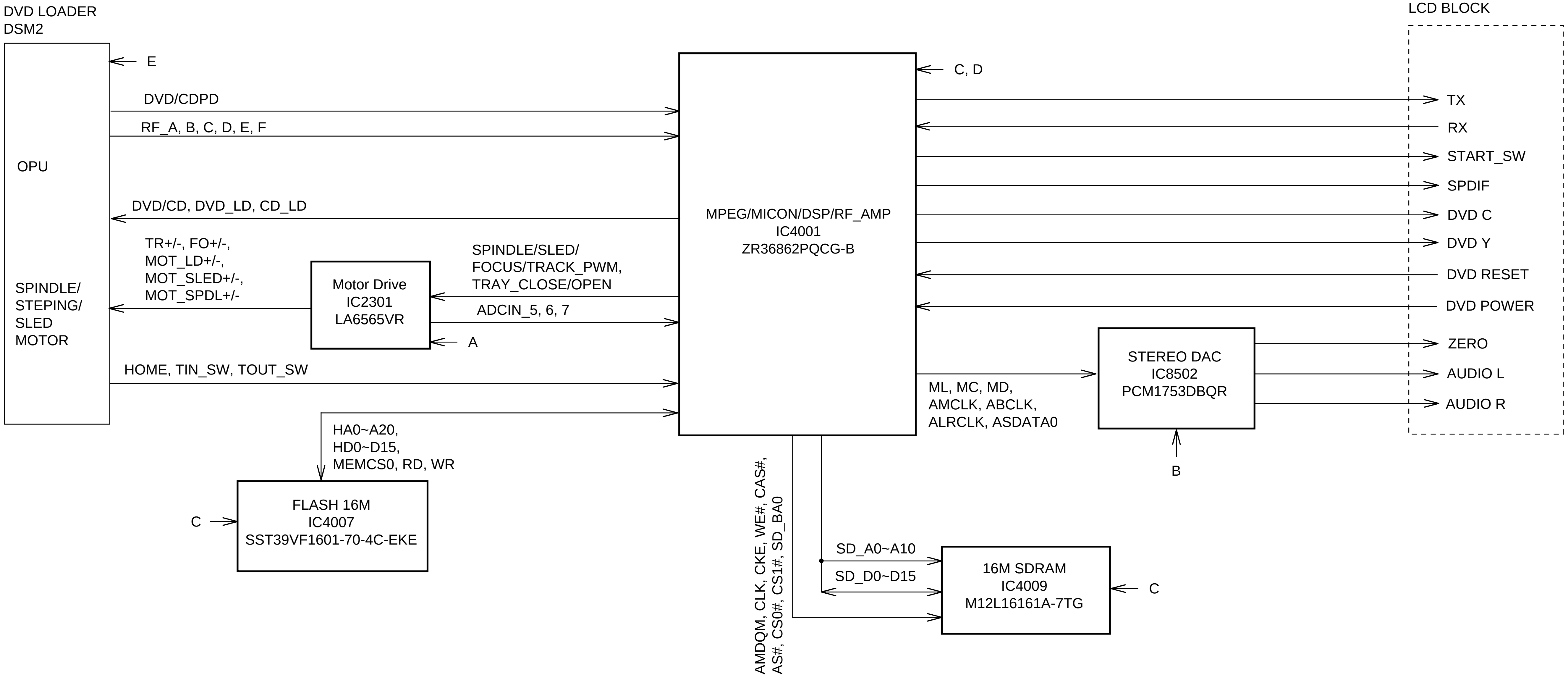

DOES NOT PLAY CD.
DOES THIS DISPLAY "INCORRECT DISC".
YES
NO
DOES CD2001 CONNECT WITH CP2301 CORRECTLY ?
YES
NO
CONNECT CD2301.
IS THE VOLTAGE BETWEEN JG019 AND JG018 LESS THAN 0.6V ?
NO
YES
CHANGE DVD DECK.
DOES THIS DISPLAY READING MARK ?
NO
CHANGE IC4001.
YES
DOES DISC ROTATE ?
NO
CHANGE DVD DECK.
YES
CHANGE IC4001.

# TROUBLESHOOTING GUIDE


NO SOUND DVD/CD ANALOG AUDIO.
DOES THIS HAVE SIGNAL AT PINS 3 AND 5 OF CD703 ?
YES
REFER TO "LCD SECTION".
NO
DOES THIS HAVE SIGNAL AT PINS 7 AND 8 OF IC8502 ?
YES
CHECK PINS 7 AND 8 OF IC8502 AND PERIPHERAL CIRCUIT.
NO
DOES THIS HAVE SIGNAL AT PINS 113, 115, 116 AND 118 OF IC4001 ?
YES
CHANGE IC8502.
NO
CHANGE IC4001.

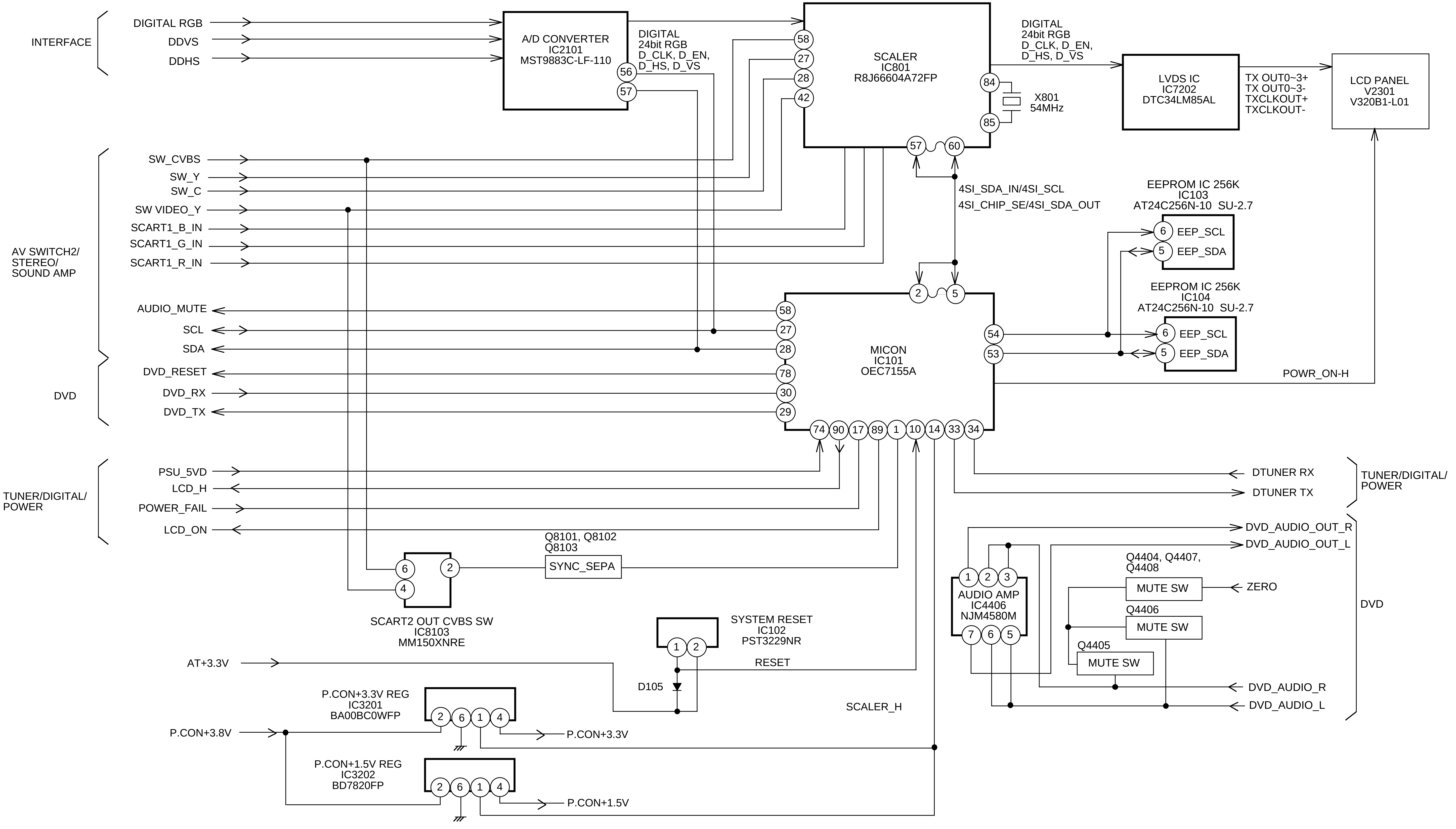

NO SOUND DVD/CD DIGITAL AUDIO.
DOES THIS HAVE SIGNAL AT PIN 1 OF CD703 ?
YES
CHECK J4202 AND PERIPHERAL CIRCUIT.
NO
DOES THIS HAVE SIGNAL AT PIN 110 OF IC4001 ?
YES
CHECK IC4001 AND PERIPHERAL CIRCUIT.
NO
CHANGE IC4001.

# DVD BLOCK DIAGRAM


DVD LOADER
DSM2
OPU
SPINDLE/
STEPING/
SLED
MOTOR
E
DVD/CDPD
RF_A, B, C, D, E, F
DVD/CD, DVD_LD, CD_LD
TR+/-, FO+/-,
MOT_LD+/-,
MOT_SLED+/-,
MOT_SPDL+/-
Motor Drive
IC2301
LA6565VR
A
SPINDLE/SLED/
FOCUS/TRACK_PWM,
TRAY_CLOSE/OPEN
ADCIN_5, 6, 7
HOME, TIN_SW, TOUT_SW
HA0~A20,
HD0~D15,
MEMCS0, RD, WR
C
FLASH 16M
IC4007
SST39VF1601-70-4C-EKE
MPEG/MICON/DSP/RF_AMP
IC4001
ZR36862PQCG-B
C, D
RAMDQM, CLK, CKE, WE#, CAS#,
RAS#, CS0#, CS1#, SD_BA0
SD_A0~A10
SD_D0~D15
16M SDRAM
IC4009
M12L16161A-7TG
C
ML, MC, MD,
AMCLK, ABCLK,
ALRCLK, ASDATA0
STEREO DAC
IC8502
PCM1753DBQR
B
LCD BLOCK
TX
RX
START_SW
SPDIF
DVD C
DVD Y
DVD RESET
DVD POWER
ZERO
AUDIO L
AUDIO R

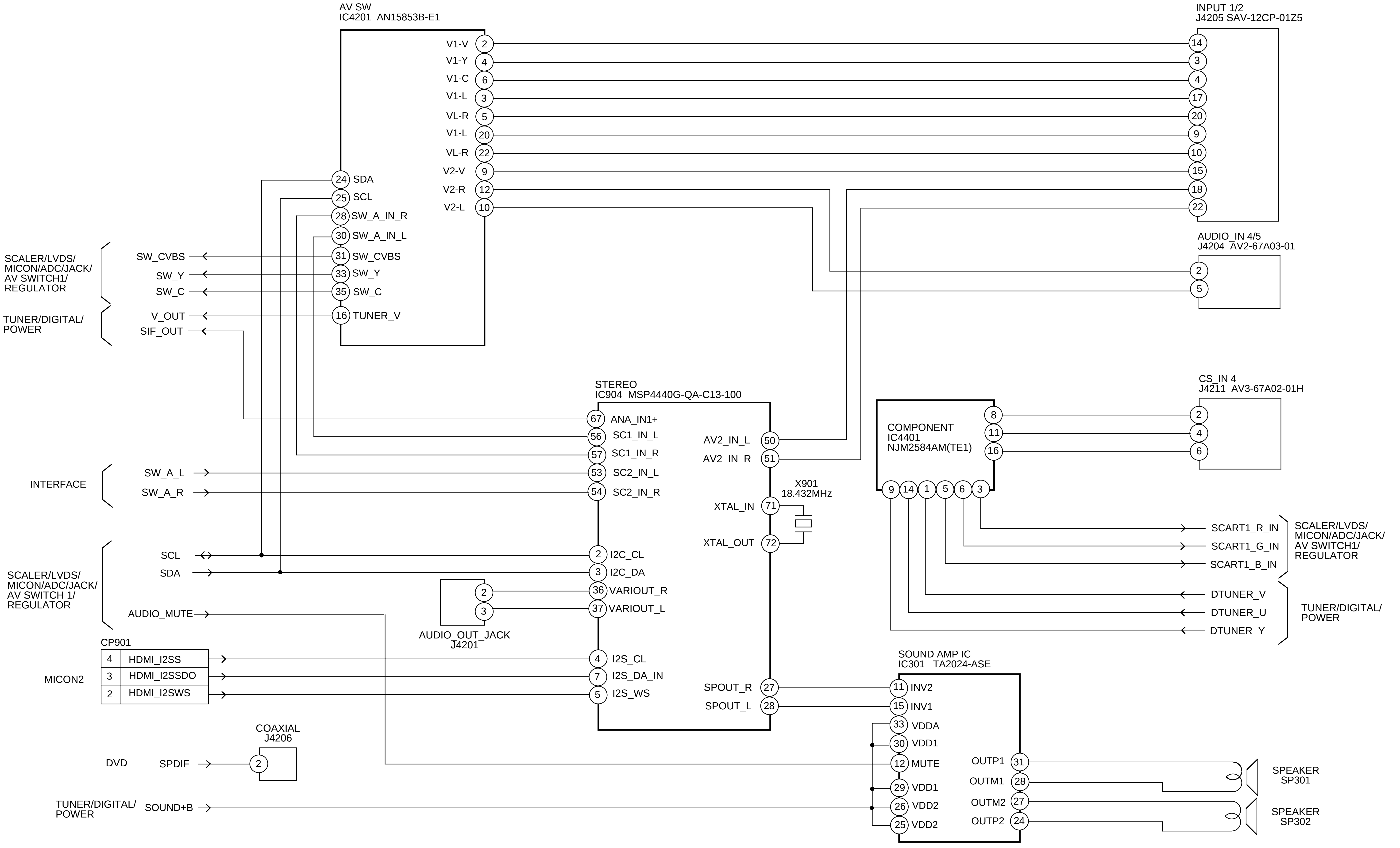
A---P.CON+6V
B---P.CON+5V
C---P.CON+3.3V
D---P.CON+1.8V
E---P.CON+A5V

# SCALER/LVDS/MICON/ADC/JACK/AV SWITCH1/REGULATOR BLOCK DIAGRAM

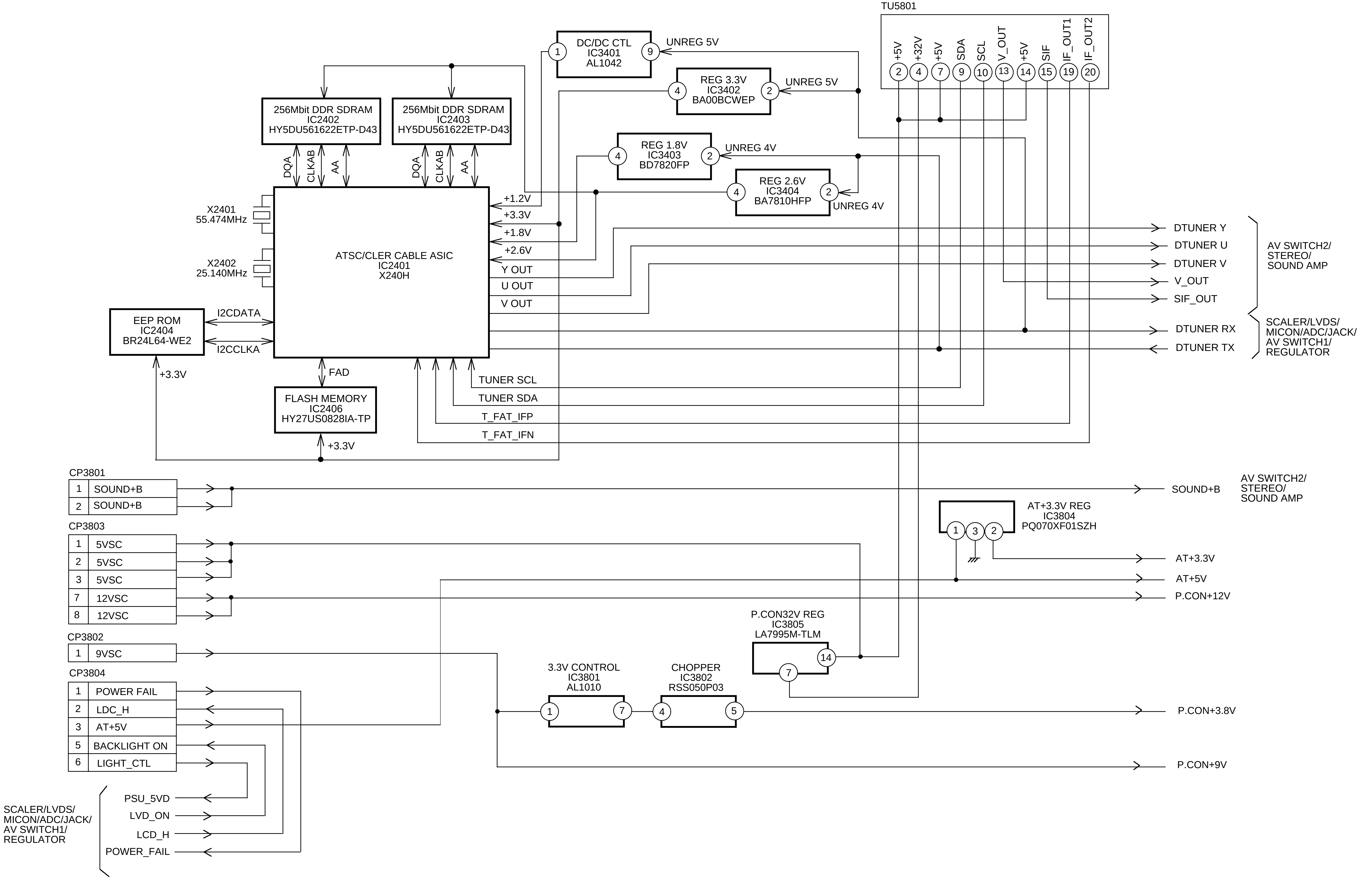


INTERFACE
DIGITAL RGB
DDVS
DDHS
A/D CONVERTER
IC2101
MST9883C-LF-110
56
57
DIGITAL
24bit RGB
D_CLK, D_EN,
D_HS, D_VS
SCALER
IC801
R8J66604A72FP
58
27
28
42
84
85
57
60
X801
54MHz
DIGITAL
24bit RGB
D_CLK, D_EN,
D_HS, D_VS
LVDS IC
IC7202
DTC34LM85AL
TX OUT0~3+
TX OUT0~3-
TXCLKOUT+
TXCLKOUT-
LCD PANEL
V2301
V320B1-L01
AV SWITCH2/
STEREO/
SOUND AMP
SW_CVBS
SW_Y
SW_C
SW VIDEO_Y
SCART1_B_IN
SCART1_G_IN
SCART1_R_IN
AUDIO_MUTE
SCL
SDA
4SI_SDA_IN/4SI_SCL
4SI_CHIP_SE/4SI_SDA_OUT
EEPROM IC 256K
IC103
AT24C256N-10 SU-2.7
6 EEP_SCL
5 EEP_SDA
EEPROM IC 256K
IC104
AT24C256N-10 SU-2.7
6 EEP_SCL
5 EEP_SDA
MICON
IC101
OEC7155A
2
5
58
27
28
78
30
29
54
53
74 90 17 89 1 10 14 33 34
POWR_ON-H
DVD
DVD_RESET
DVD_RX
DVD_TX
TUNER/DIGITAL/
POWER
PSU_5VD
LCD_H
POWER_FAIL
LCD_ON
DTUNER RX
DTUNER TX
TUNER/DIGITAL/
POWER
DVD_AUDIO_OUT_R
DVD_AUDIO_OUT_L
Q8101, Q8102
Q8103
SYNC_SEPA
6
2
4
SCART2 OUT CVBS SW
IC8103
MM150XNRE
AUDIO AMP
IC4406
NJM4580M
1 2 3
7 6 5
Q4404, Q4407,
Q4408
MUTE SW
ZERO
Q4406
MUTE SW
Q4405
MUTE SW
DVD
DVD_AUDIO_R
DVD_AUDIO_L
SYSTEM RESET
IC102
PST3229NR
1 2
RESET
AT+3.3V
D105
SCALER_H
P.CON+3.3V REG
IC3201
BA00BC0WFP
2 6 1 4
P.CON+3.3V
P.CON+3.8V
P.CON+1.5V REG
IC3202
BD7820FP
2 6 1 4
P.CON+1.5V

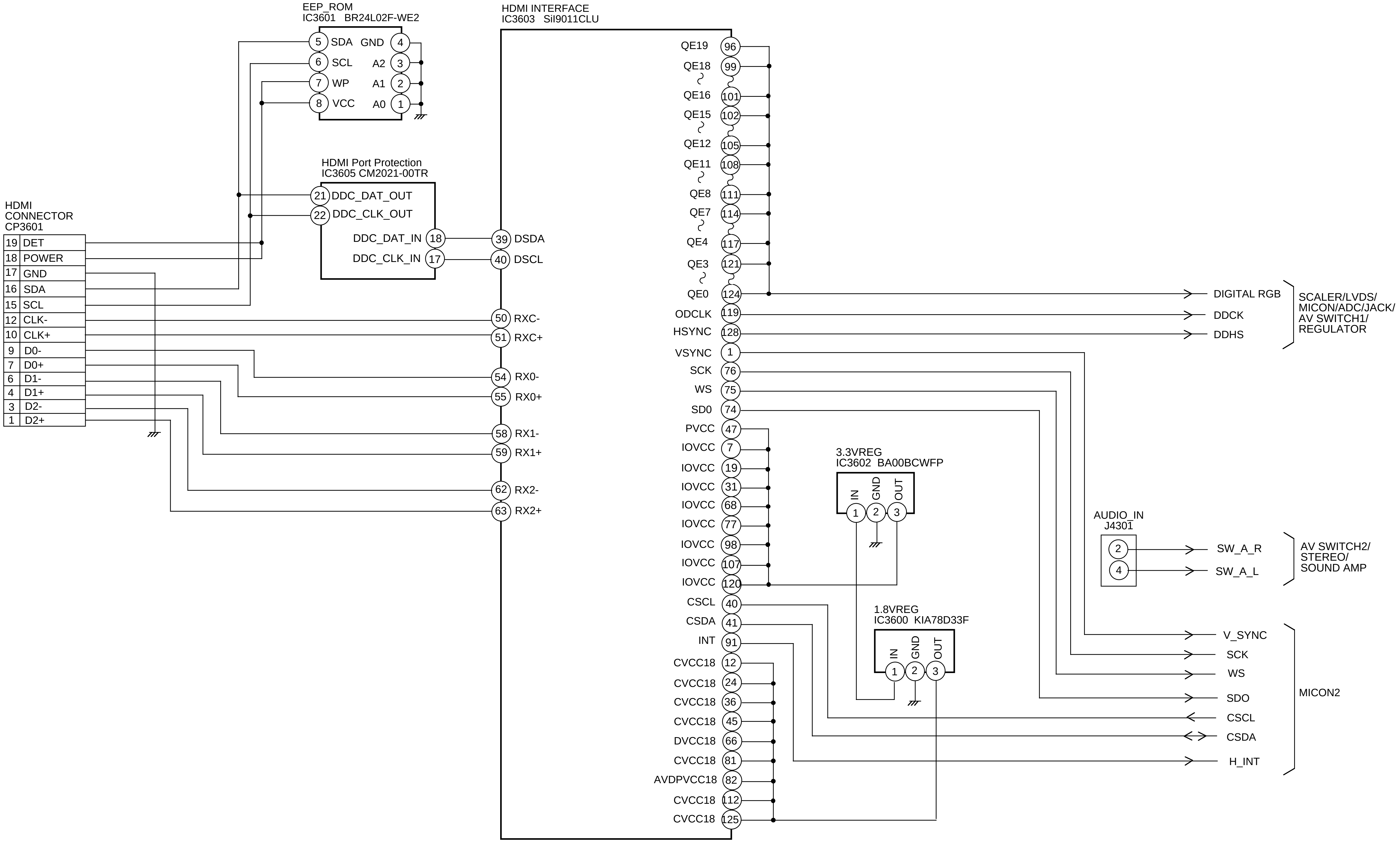
# AV SWITCH2/STEREO/SOUND AMP BLOCK DIAGRAM


AV SW
IC4201 AN15853B-E1
V1-V 2
V1-Y 4
V1-C 6
V1-L 3
VL-R 5
V1-L 20
VL-R 22
V2-V 9
V2-R 12
V2-L 10
24 SDA
25 SCL
28 SW_A_IN_R
30 SW_A_IN_L
31 SW_CVBS
33 SW_Y
35 SW_C
16 TUNER_V
INPUT 1/2
J4205 SAV-12CP-01Z5
14
3
4
17
20
9
10
15
18
22
AUDIO_IN 4/5
J4204 AV2-67A03-01
2
5
SCALER/LVDS/
MICON/ADC/JACK/
AV SWITCH1/
REGULATOR
SW_CVBS
SW_Y
SW_C
TUNER/DIGITAL/
POWER
V_OUT
SIF_OUT
STEREO
IC904 MSP4440G-QA-C13-100
67 ANA_IN1+
56 SC1_IN_L
57 SC1_IN_R
53 SC2_IN_L
54 SC2_IN_R
AV2_IN_L 50
AV2_IN_R 51
X901
18.432MHz
XTAL_IN 71
XTAL_OUT 72
2 I2C_CL
3 I2C_DA
36 VARIOUT_R
37 VARIOUT_L
4 I2S_CL
7 I2S_DA_IN
5 I2S_WS
SPOUT_R 27
SPOUT_L 28
INTERFACE
SW_A_L
SW_A_R
SCALER/LVDS/
MICON/ADC/JACK/
AV SWITCH 1/
REGULATOR
SCL
SDA
AUDIO_MUTE
AUDIO_OUT_JACK
J4201
2
3
CP901
4 HDMI_I2SS
3 HDMI_I2SSDO
2 HDMI_I2SWS
MICON2
COAXIAL
J4206
2
DVD
SPDIF
TUNER/DIGITAL/
POWER
SOUND+B
COMPONENT
IC4401
NJM2584AM(TE1)
8
11
16
9 14 1 5 6 3
CS_IN 4
J4211 AV3-67A02-01H
2
4
6
SCART1_R_IN
SCART1_G_IN
SCART1_B_IN
SCALER/LVDS/
MICON/ADC/JACK/
AV SWITCH1/
REGULATOR
DTUNER_V
DTUNER_U
DTUNER_Y
TUNER/DIGITAL/
POWER
SOUND AMP IC
IC301 TA2024-ASE
11 INV2
15 INV1
33 VDDA
30 VDD1
12 MUTE
29 VDD1
26 VDD2
25 VDD2
OUTP1 31
OUTM1 28
OUTM2 27
OUTP2 24
SPEAKER
SP301
SPEAKER
SP302

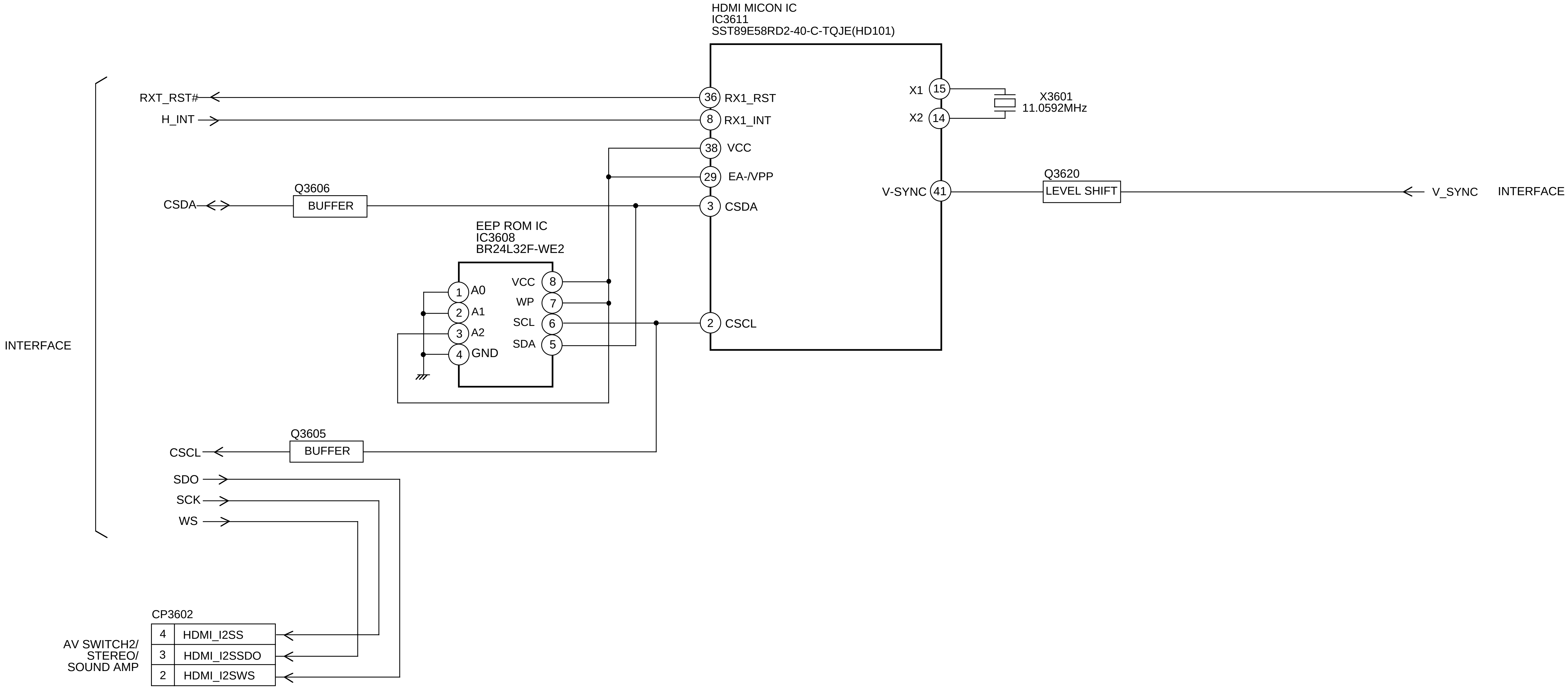
# TUNER/DIGITAL/POWER BLOCK DIAGRAM


TU5801
+5V 2
+32V 4
+5V 7
SDA 9
SCL 10
V_OUT 13
+5V 14
SIF 15
IF_OUT1 19
IF_OUT2 20
DC/DC CTL
IC3401
AL1042
1
9
UNREG 5V
REG 3.3V
IC3402
BA00BCWEP
4
2
UNREG 5V
256Mbit DDR SDRAM
IC2402
HY5DU561622ETP-D43
256Mbit DDR SDRAM
IC2403
HY5DU561622ETP-D43
REG 1.8V
IC3403
BD7820FP
UNREG 4V
REG 2.6V
IC3404
BA7810HFP
UNREG 4V
DQA
CLKAB
AA
DQA
CLKAB
AA
X2401
55.474MHz
X2402
25.140MHz
ATSC/CLER CABLE ASIC
IC2401
X240H
+1.2V
+3.3V
+1.8V
+2.6V
Y OUT
U OUT
V OUT
DTUNER Y
DTUNER U
DTUNER V
V_OUT
SIF_OUT
AV SWITCH2/
STEREO/
SOUND AMP
DTUNER RX
DTUNER TX
SCALER/LVDS/
MICON/ADC/JACK/
AV SWITCH1/
REGULATOR
EEP ROM
IC2404
BR24L64-WE2
I2CDATA
I2CCLKA
+3.3V
FAD
FLASH MEMORY
IC2406
HY27US0828IA-TP
+3.3V
TUNER SCL
TUNER SDA
T_FAT_IFP
T_FAT_IFN
CP3801
1 SOUND+B
2 SOUND+B
SOUND+B
AV SWITCH2/
STEREO/
SOUND AMP
CP3803
1 5VSC
2 5VSC
3 5VSC
7 12VSC
8 12VSC
AT+3.3V REG
IC3804
PQ070XF01SZH
1
3
2
AT+3.3V
AT+5V
P.CON+12V
CP3802
1 9VSC
P.CON32V REG
IC3805
LA7995M-TLM
14
7
CP3804
1 POWER FAIL
2 LDC_H
3 AT+5V
5 BACKLIGHT ON
6 LIGHT_CTL
3.3V CONTROL
IC3801
AL1010
1
7
CHOPPER
IC3802
RSS050P03
4
5
P.CON+3.8V
P.CON+9V
SCALER/LVDS/
MICON/ADC/JACK/
AV SWITCH1/
REGULATOR
PSU_5VD
LVD_ON
LCD_H
POWER_FAIL

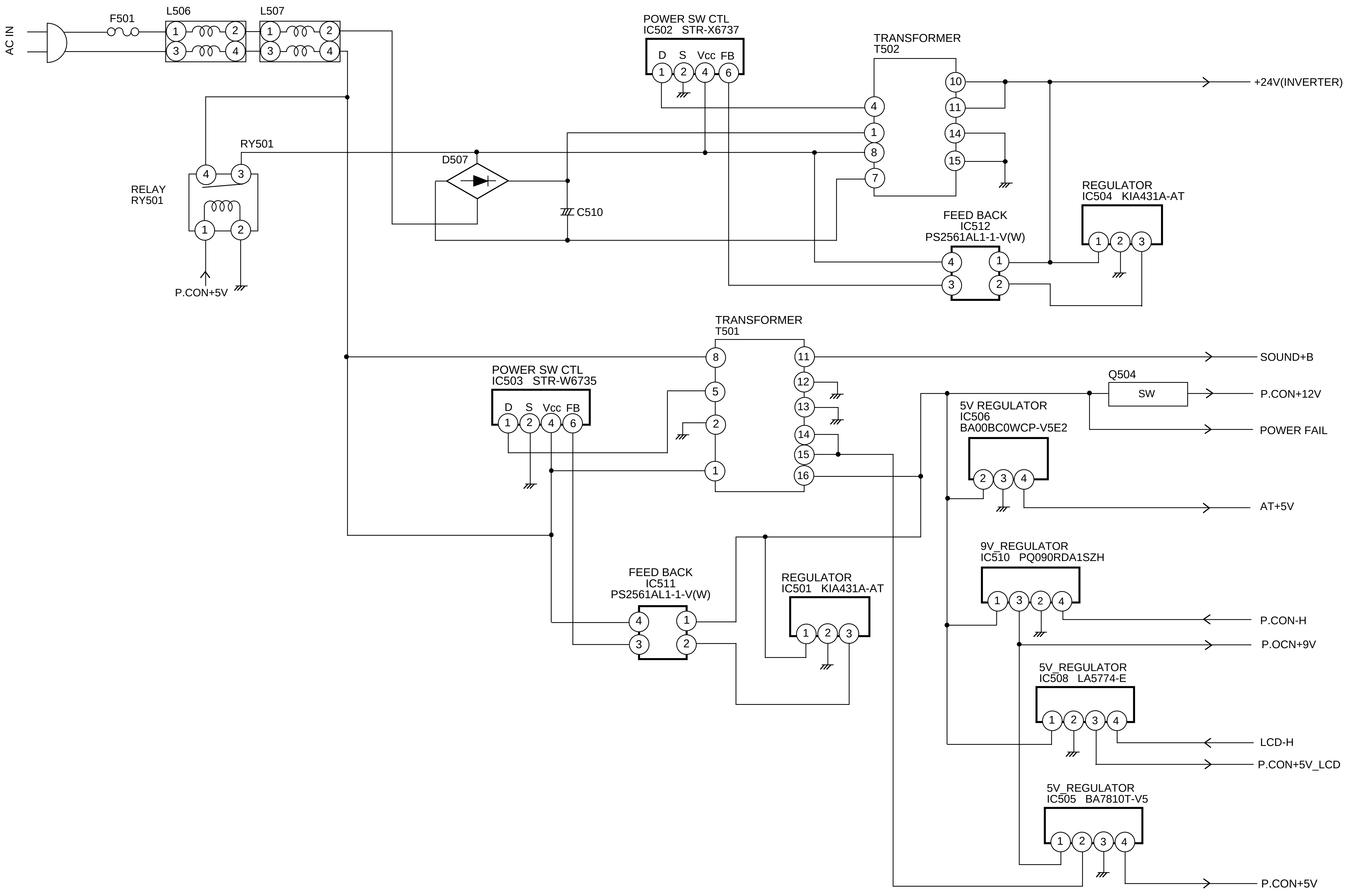
# INTERFACE BLOCK DIAGRAM


EEP_ROM
IC3601 BR24L02F-WE2
5 SDA
6 SCL
7 WP
8 VCC
GND 4
A2 3
A1 2
A0 1
HDMI Port Protection
IC3605 CM2021-00TR
21 DDC_DAT_OUT
22 DDC_CLK_OUT
DDC_DAT_IN 18
DDC_CLK_IN 17
HDMI
CONNECTOR
CP3601
19 DET
18 POWER
17 GND
16 SDA
15 SCL
12 CLK-
10 CLK+
9 D0-
7 D0+
6 D1-
4 D1+
3 D2-
1 D2+
HDMI INTERFACE
IC3603 SiI9011CLU
39 DSDA
40 DSCL
50 RXC-
51 RXC+
54 RX0-
55 RX0+
58 RX1-
59 RX1+
62 RX2-
63 RX2+
QE19 96
QE18 99
QE16 101
QE15 102
QE12 105
QE11 108
QE8 111
QE7 114
QE4 117
QE3 121
QE0 124
ODCLK 119
HSYNC 128
VSYNC 1
SCK 76
WS 75
SD0 74
PVCC 47
IOVCC 7
IOVCC 19
IOVCC 31
IOVCC 68
IOVCC 77
IOVCC 98
IOVCC 107
IOVCC 120
CSCL 40
CSDA 41
INT 91
CVCC18 12
CVCC18 24
CVCC18 36
CVCC18 45
DVCC18 66
CVCC18 81
AVDPVCC18 82
CVCC18 112
CVCC18 125
3.3VREG
IC3602 BA00BCWFP
IN GND OUT
1 2 3
1.8VREG
IC3600 KIA78D33F
IN GND OUT
1 2 3
AUDIO_IN
J4301
2
4
DIGITAL RGB
DDCK
DDHS
SCALER/LVDS/
MICON/ADC/JACK/
AV SWITCH1/
REGULATOR
SW_A_R
SW_A_L
AV SWITCH2/
STEREO/
SOUND AMP
V_SYNC
SCK
WS
SDO
CSCL
CSDA
H_INT
MICON2

# MICON2 BLOCK DIAGRAM

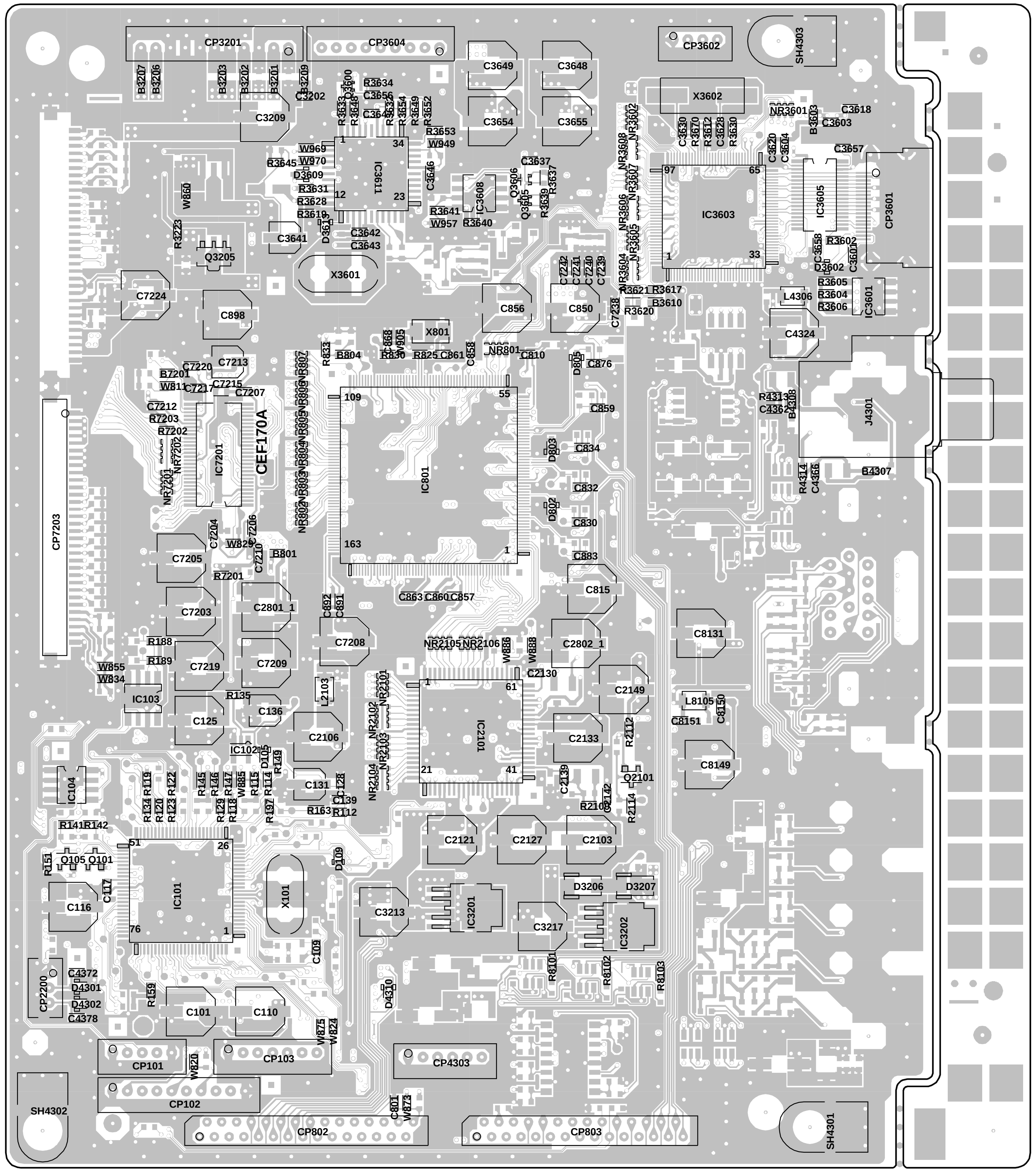

HDMI MICON IC
IC3611
SST89E58RD2-40-C-TQJE(HD101)
RXT_RST#
H_INT
CSDA
Q3606
BUFFER
36
RX1_RST
8
RX1_INT
38
VCC
29
EA-/VPP
3
CSDA
2
CSCL
X1
15
X2
14
X3601
11.0592MHz
V-SYNC
41
Q3620
LEVEL SHIFT
V_SYNC
INTERFACE
EEP ROM IC
IC3608
BR24L32F-WE2
1
A0
2
A1
3
A2
4
GND
VCC
8
WP
7
SCL
6
SDA
5
INTERFACE
Q3605
BUFFER
CSCL
SDO
SCK
WS
CP3602
4
HDMI_I2SS
3
HDMI_I2SSDO
2
HDMI_I2SWS
AV SWITCH2/
STEREO/
SOUND AMP

# POWER BLOCK DIAGRAM

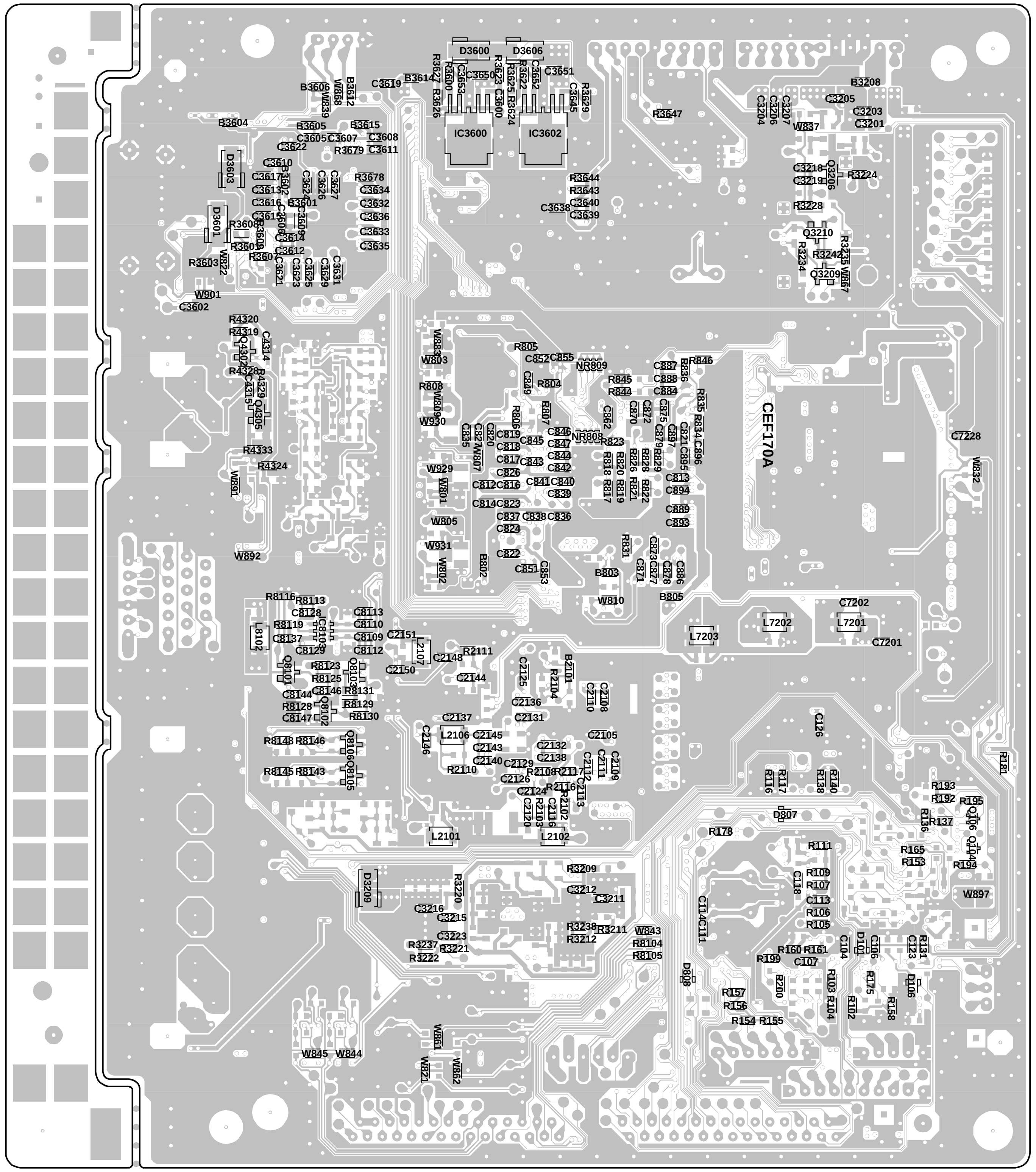

AC IN
F501
L506
L507
RELAY
RY501
RY501
P.CON+5V
D507
C510
POWER SW CTL
IC502 STR-X6737
D S Vcc FB
TRANSFORMER
T502
+24V(INVERTER)
REGULATOR
IC504 KIA431A-AT
FEED BACK
IC512
PS2561AL1-1-V(W)
TRANSFORMER
T501
SOUND+B
POWER SW CTL
IC503 STR-W6735
D S Vcc FB
Q504
SW
P.CON+12V
POWER FAIL
5V REGULATOR
IC506
BA00BC0WCP-V5E2
AT+5V
9V_REGULATOR
IC510 PQ090RDA1SZH
P.CON-H
P.OCN+9V
FEED BACK
IC511
PS2561AL1-1-V(W)
REGULATOR
IC501 KIA431A-AT
5V_REGULATOR
IC508 LA5774-E
LCD-H
P.CON+5V_LCD
5V_REGULATOR
IC505 BA7810T-V5
P.CON+5V

# PRINTED CIRCUIT BOARDS

## SCALER (TOP SIDE)

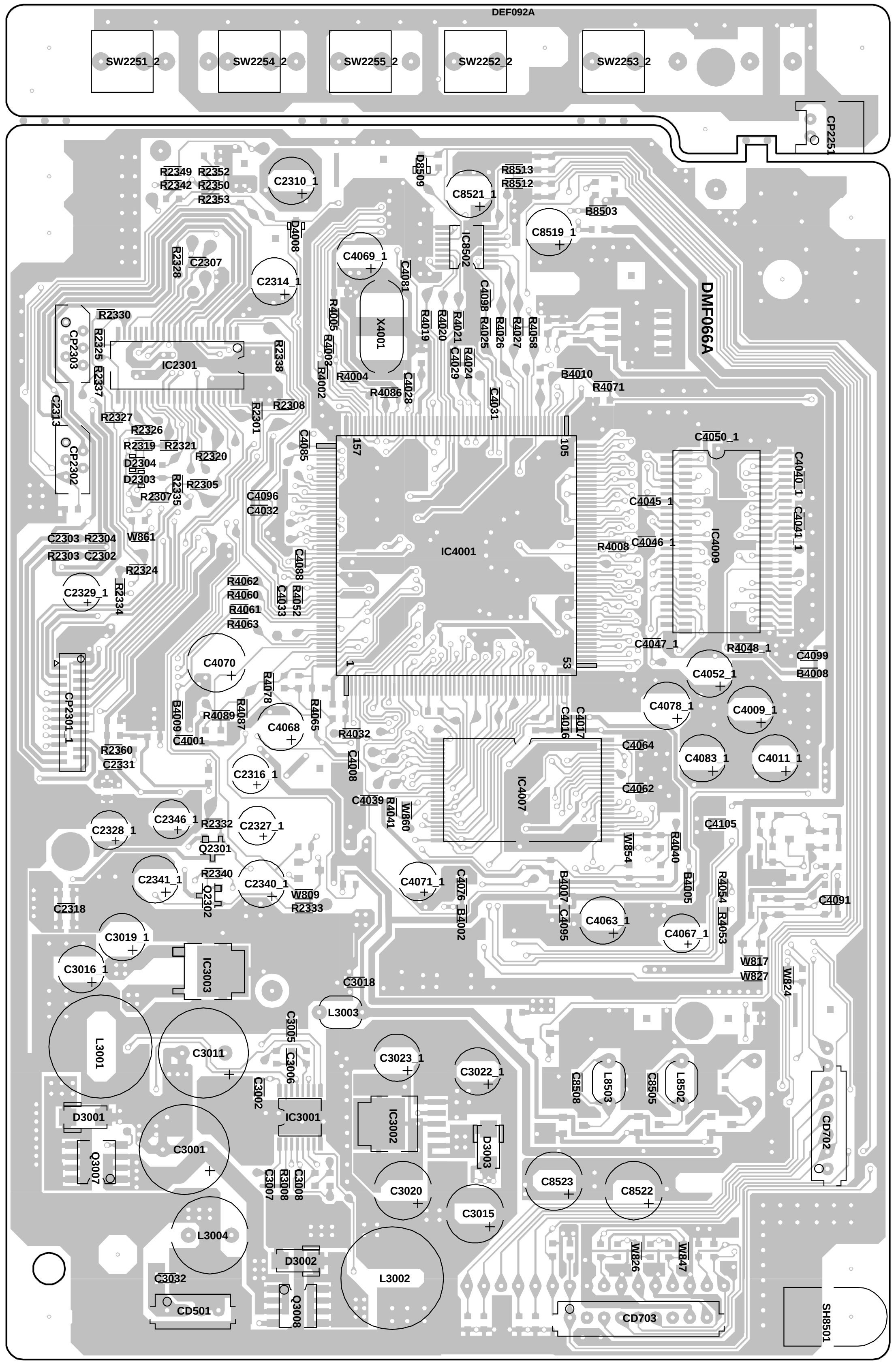

CP3201
CP3604
CP3602
SH4303
X3602
IC3611
IC3603
IC3605
CP3601
IC3601
X3601
IC3608
IC801
CEF170A
IC7201
CP7203
J4301
IC2101
IC103
IC102
IC101
X101
IC3201
CP2200
CP101
CP103
CP102
CP4303
CP802
CP803
SH4302
SH4301

## SCALER (BOTTOM SIDE)

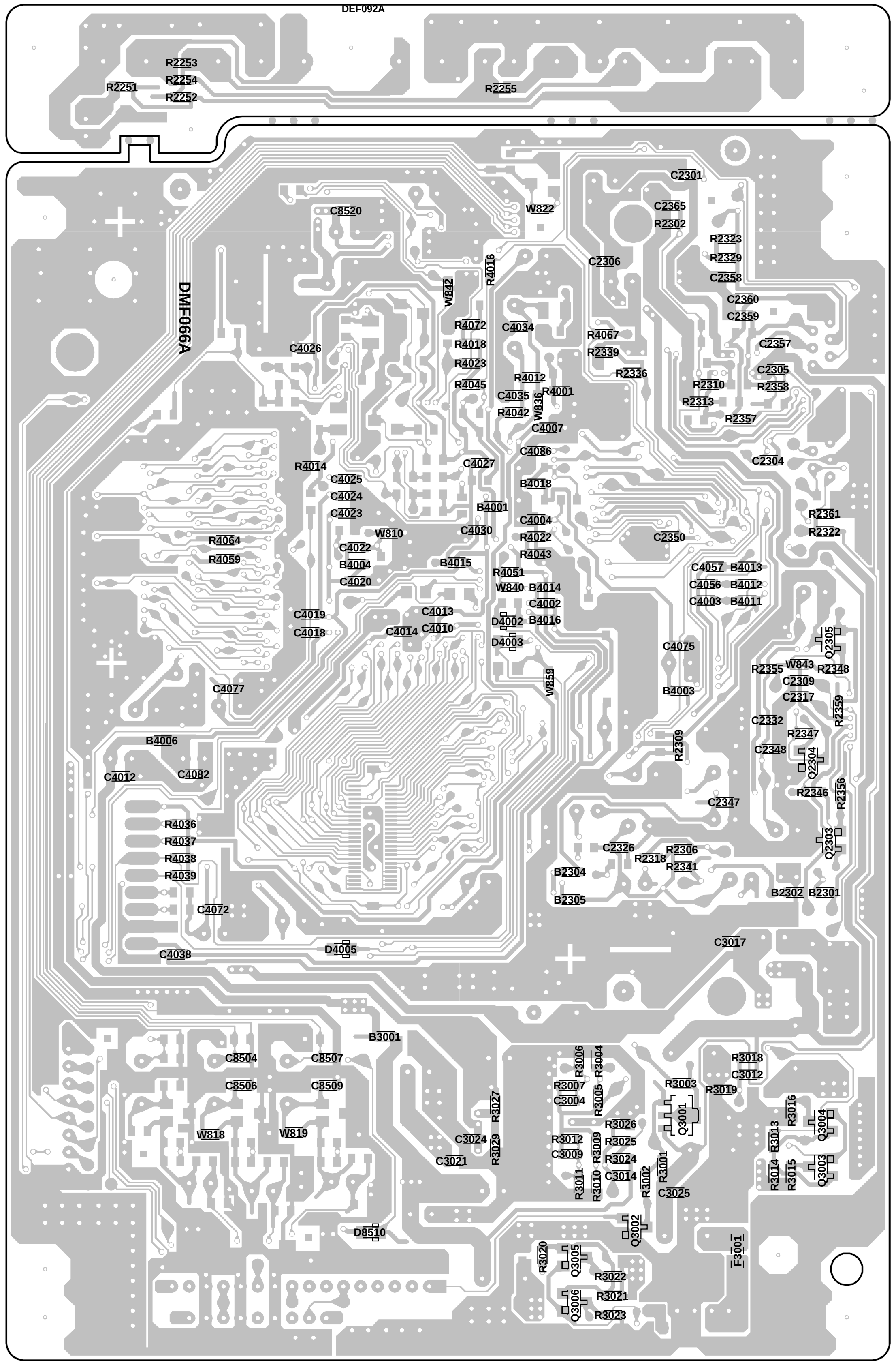

D3600
D3606
IC3600
IC3602
CEF170A
L7202
L7201
L7203
L2101
L2102
D3209

# PRINTED CIRCUIT BOARDS

## DVD (TOP SIDE)

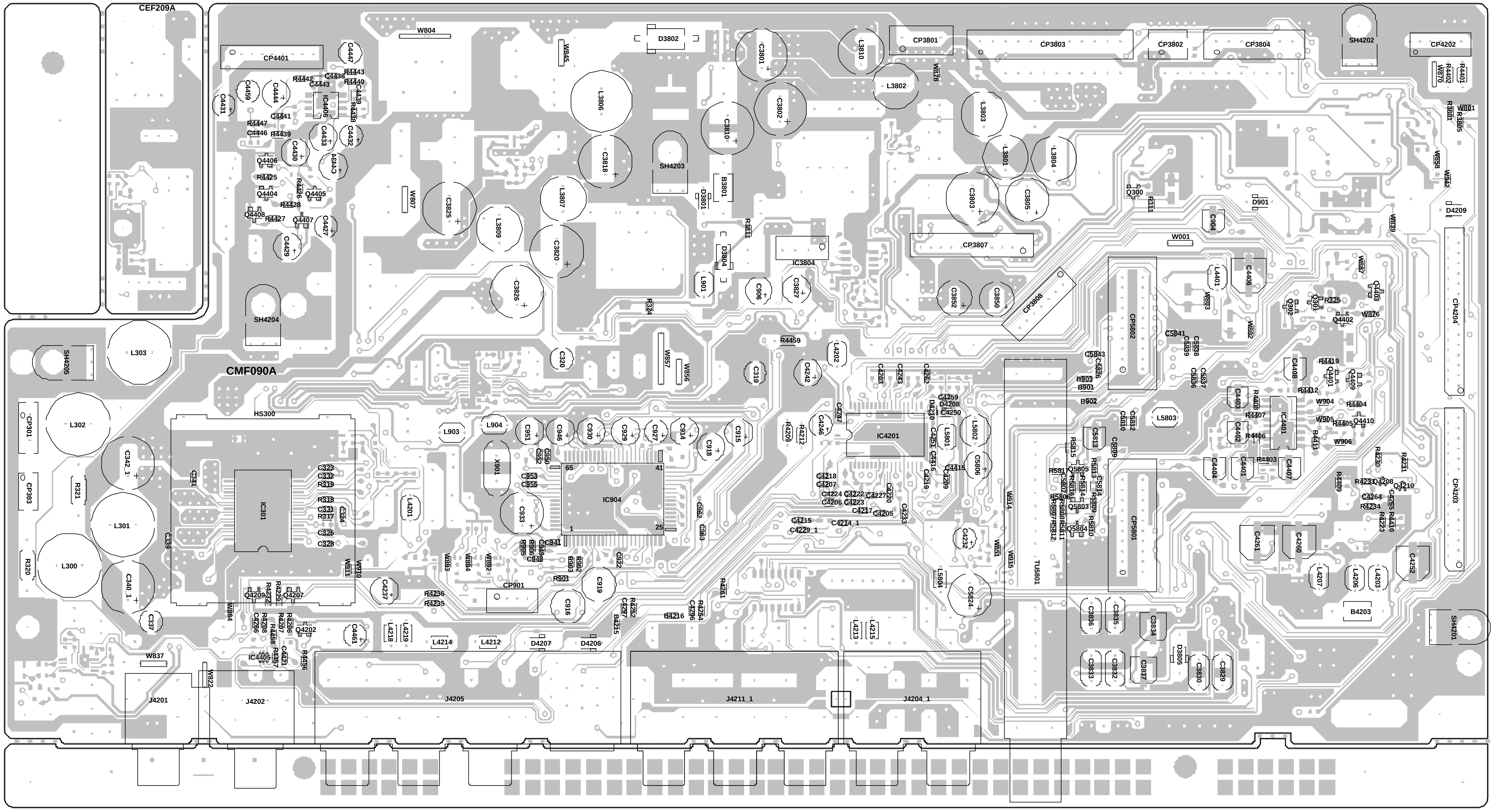

DEF092A
DMF066A
IC4001
IC4009
IC4007
IC2301
CD702
CD703
CD501
SH8501

## DVD (BOTTOM SIDE)


DEF092A
DMF066A

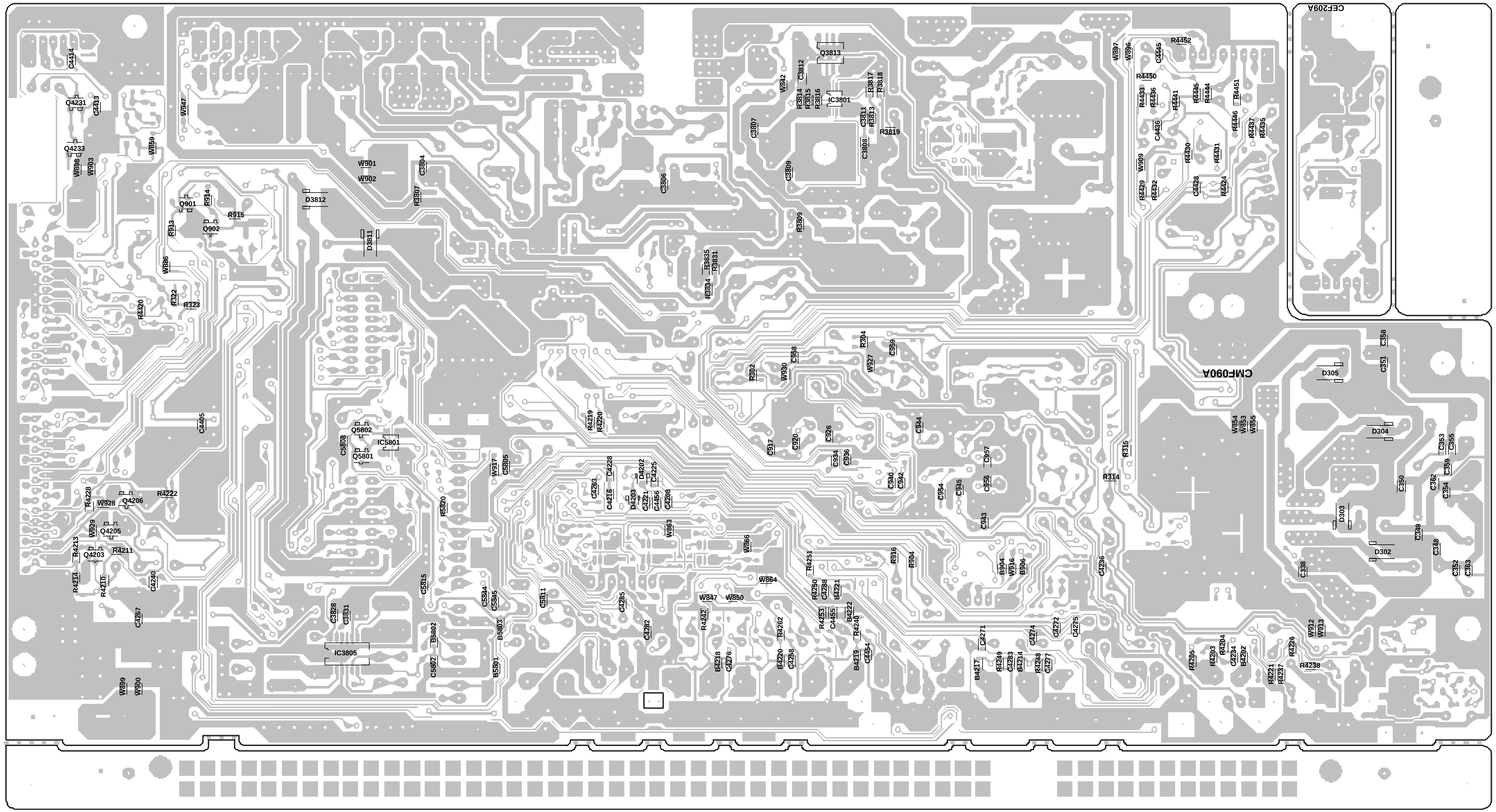
# PRINTED CIRCUIT BOARDS

## AV/SIDE JACK (TOP SIDE)

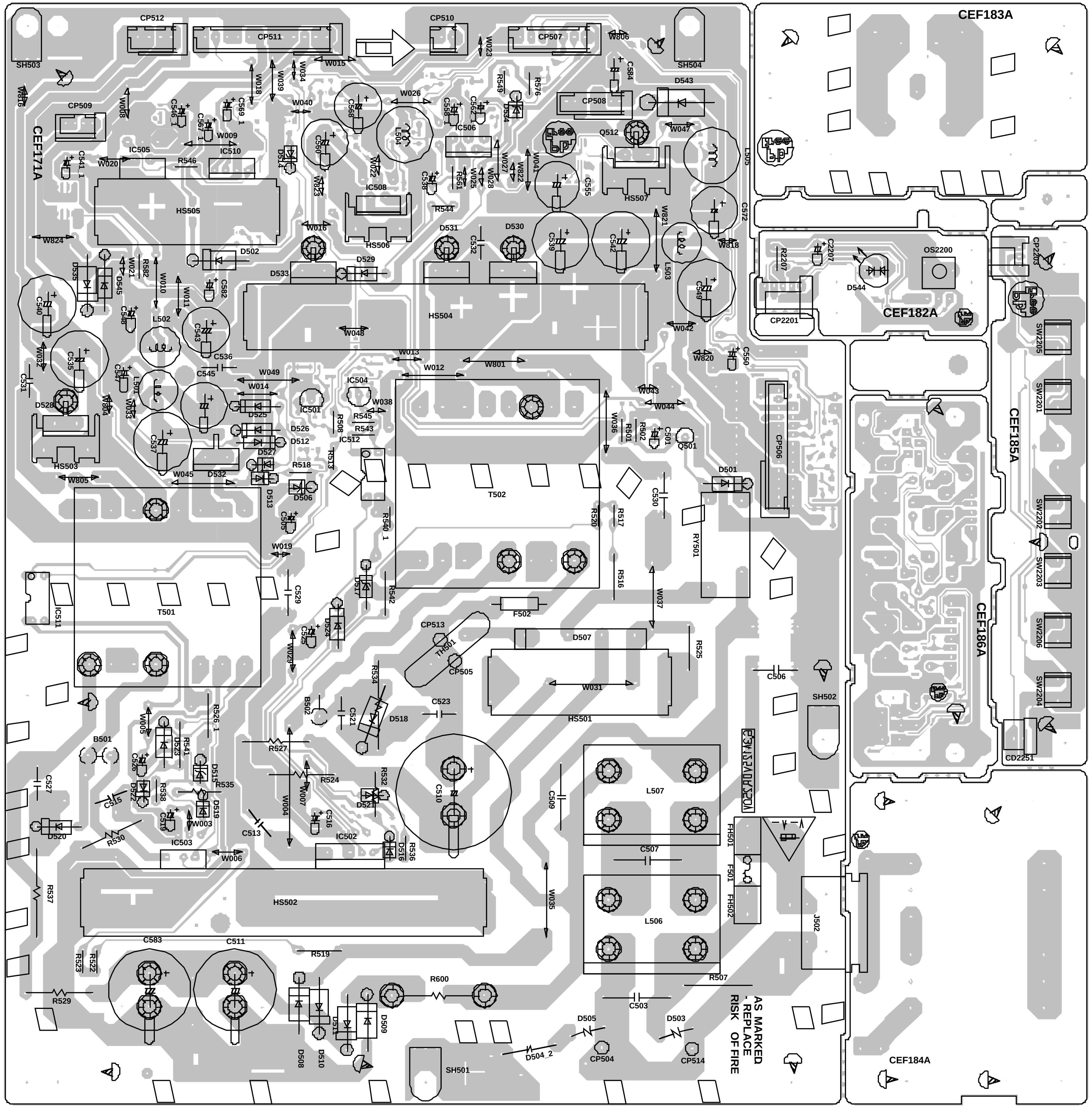

CEF209A
CMF090A
IC904
IC301
IC4201
TU5801
J4201
J4202
J4205
J4211_1
J4204_1
CP4401
CP3801
CP3803
CP3802
CP3804
CP4202
CP3807
CP3808
CP5802
CP5801
CP4204
CP4203
CP901
CP301
CP303
SH4202
SH4203
SH4204
SH4205
SH4201
HS300
IC3804
IC4401
IC4405
IC4406
L300
L301
L302
L303
L3806
L3807
L3809
L3802
L3803
L3804
L3810
X901

# PRINTED CIRCUIT BOARDS

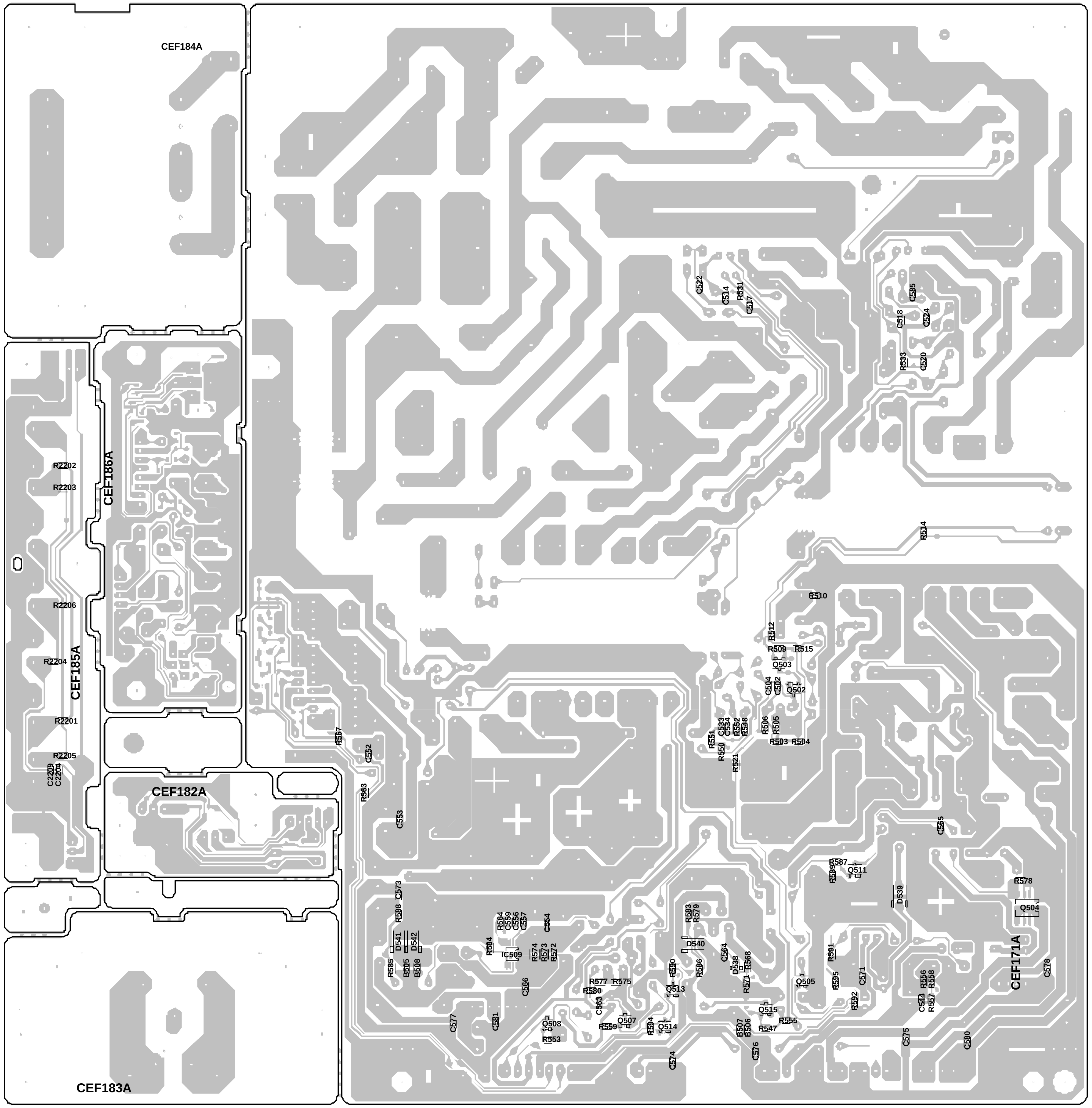
## AV/SIDE JACK (BOTTOM SIDE)


CEF209A
CMF090A
C4414
Q4231
C4413
Q4233
W898
W903
W859
W847
W901
W902
C3804
R3807
D3812
Q901
R914
R915
Q902
R913
D3811
W886
R322
R323
R4420
C3806
C3807
C3809
R3809
W842
C3812
Q3813
R3814
R3815
R3816
IC3801
R3817
R3818
C3811
R3813
R3819
C3808
R3835
R3831
R3834
W897
W896
C4445
R4452
R4450
R4433
R4436
R4441
R4445
R4444
R4451
C4436
R4446
R4437
R4435
W909
R4430
R4431
R4429
R4432
C4428
R4424
C358
D305
C351
R304
C959
W927
C958
R302
W930
C4405
Q5802
C5808
IC5801
Q5801
R4219
R4220
W917
C5805
C4228
D4202
C4225
C4263
C4216
D4203
C4221
C4456
C4208
C917
C920
C926
C934
C936
C944
C957
R315
W854
W853
W855
D304
C353
C355
R314
C940
C942
C954
C945
C956
C350
C362
C359
C354
R4228
W928
Q4206
R4222
R5820
W929
Q4205
W863
C943
D303
C349
R4213
Q4203
R4211
W866
R4251
R916
R904
B904
W916
B906
C4236
D302
C348
C338
C352
C363
R4214
R4210
C4240
C5815
W864
R4250
C4288
B4221
C5844
C5845
C5811
C4285
W847
W850
C4267
C3828
C3831
B5802
B5803
C4282
R4242
R4262
R4253
C4455
B4222
R4240
C4271
C4274
C4272
C4275
R4206
R4203
R4204
C4234
B4202
R4226
W912
W913
IC3805
C5802
B5801
B4218
C4276
B4220
C4258
B4219
C4454
B4217
R4249
C4283
B4214
R4248
C4277
R4221
R4237
R4238
W899
W900

# PRINTED CIRCUIT BOARDS
# POWER/OPERATION1/REMOCON (INSERTED PARTS)
## SOLDER SIDE

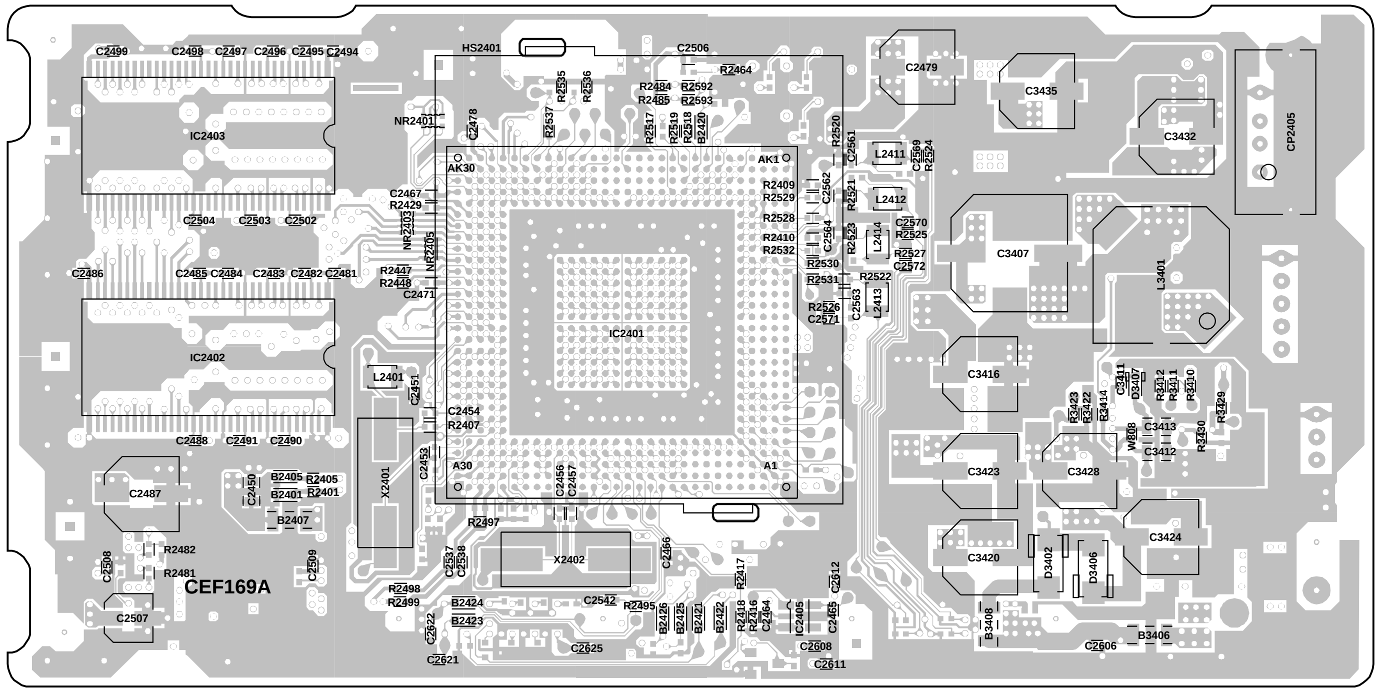

CEF171A
CEF183A
CEF182A
CEF185A
CEF186A
CEF184A
CP512
CP511
CP510
CP507
CP509
CP508
CP506
CP513
CP505
CP504
CP514
CP2201
CP2203
SH503
SH504
SH502
SH501
HS505
HS504
HS503
HS506
HS507
HS501
HS502
IC505
IC510
IC506
IC508
IC504
IC501
IC512
IC511
IC503
IC502
T501
T502
L502
L501
L504
L505
L503
L506
L507
Q512
Q501
D543
D544
D502
D533
D529
D531
D530
D501
D507
D518
D520
D528
D525
D526
D512
D527
D532
D506
D513
D517
D524
D521
D516
D505
D503
D508
D509
D510
D511
D504_2
F502
F501
FH501
FH502
RY501
TH501
B501
B502
J502
OS2200
CD2251
SW2205
SW2201
SW2202
SW2203
SW2206
SW2204
C510
C509
C507
C506
C503
C583
C511
C513
C527
C529
C530
C523
R600
R507
R519
R529
R530
R537
R524
R527
R525
R516
R517
R520
W031
W035
W037
W801
W012
W013
W048
R2207
C2207
RISK OF FIRE - REPLACE AS MARKED

# PRINTED CIRCUIT BOARDS
# POWER/OPERATION1 (CHIP MOUNTED PARTS)
## SOLDER SIDE

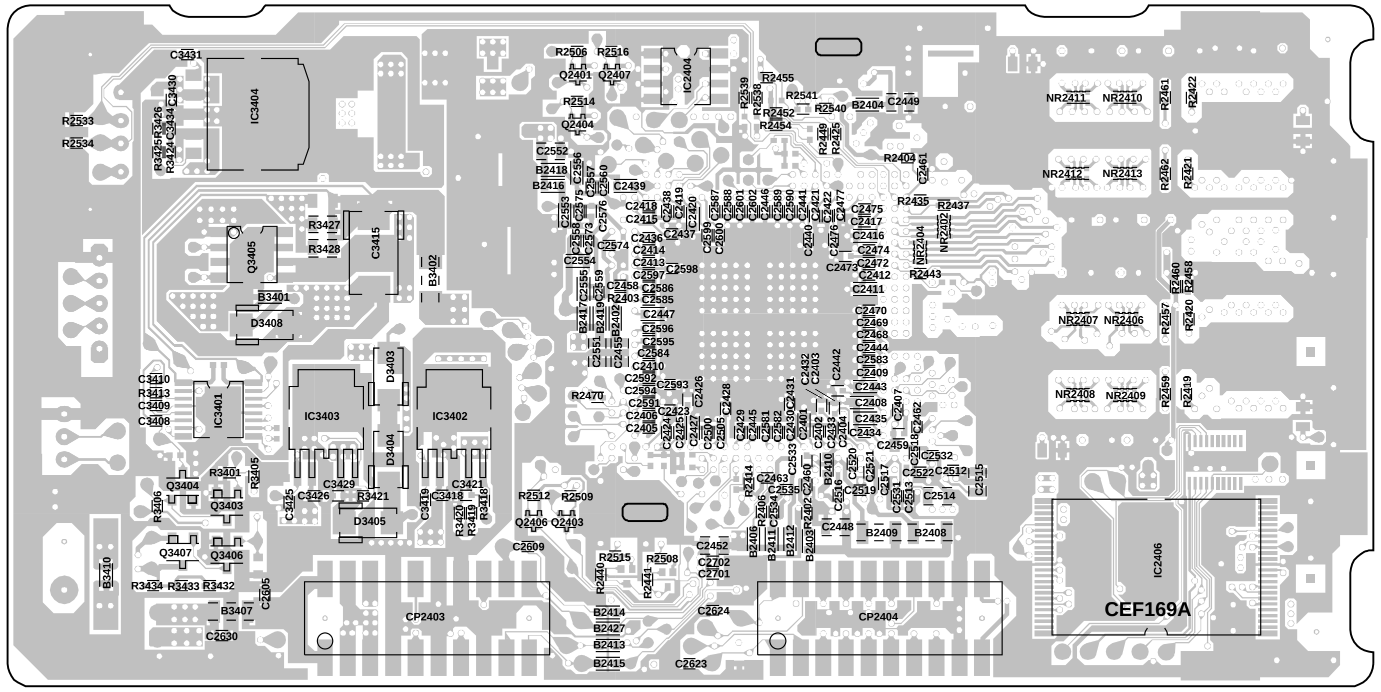

CEF184A
CEF186A
CEF185A
CEF182A
CEF183A
CEF171A
R2202
R2203
R2206
R2204
R2201
R2205
C2209
C2204
C522
C514
R531
C517
C585
C518
C524
R533
C520
R514
R510
R512
R509
R515
Q503
C504
C502
Q502
C533
C534
R552
R548
R506
R505
R503
R504
R551
R550
R521
R567
C552
R563
C553
C565
R587
R590
Q511
R578
D539
Q504
C573
R588
R594
C559
C556
C557
C554
D541
D542
R584
IC509
R574
R573
R572
R585
R505
R508
C556
R583
R579
D540
R590
R586
C564
D538
R568
R571
R591
R595
C571
Q505
R556
R558
C578
R577
R575
R580
Q513
C563
Q515
R592
C543
R557
R555
C577
C581
Q508
R553
R559
Q507
R594
Q514
R507
R506
R547
C574
C576
C575
C580

# PRINTED CIRCUIT BOARDS

## DIGITAL (TOP SIDE)

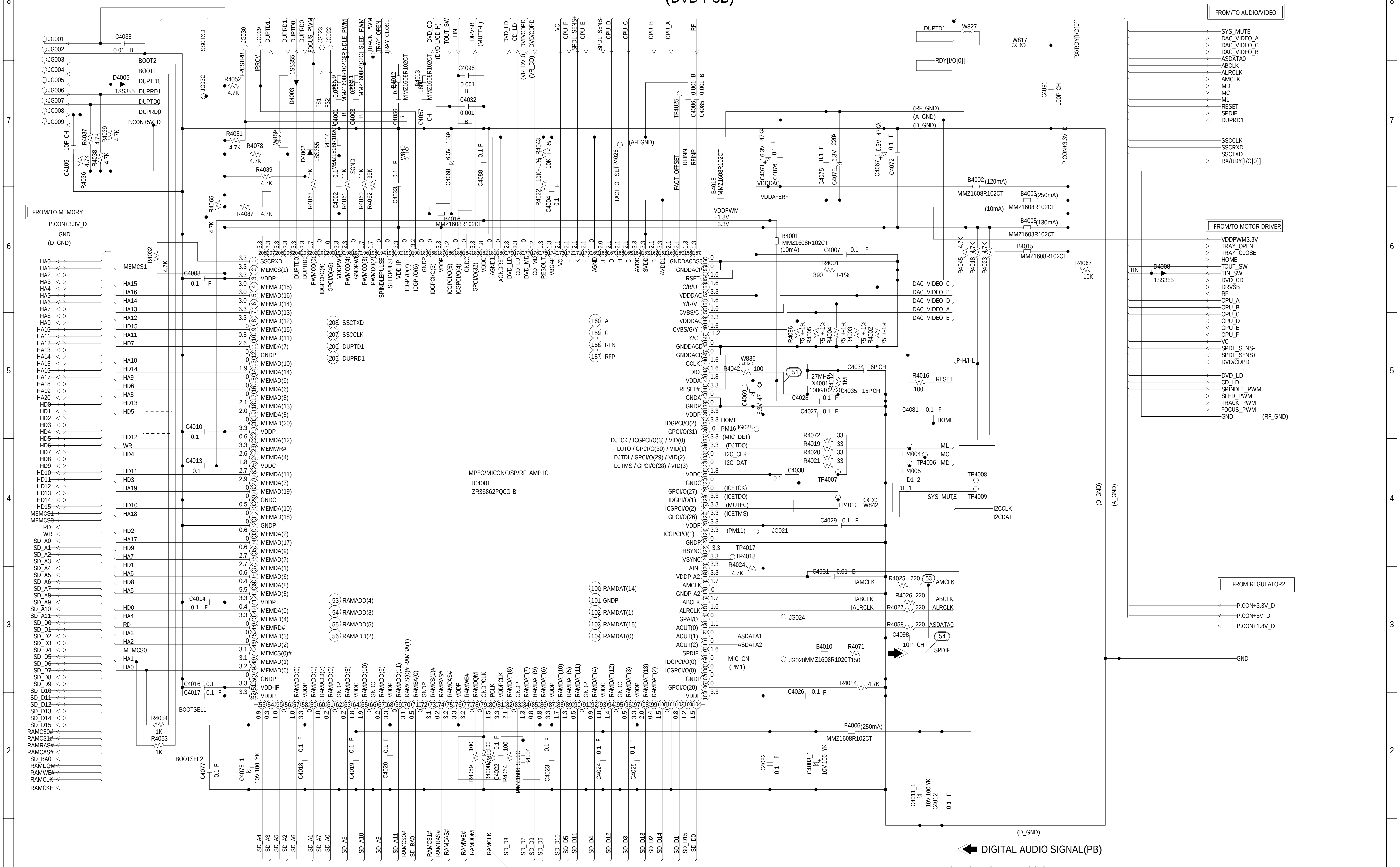

CEF169A
IC2401
IC2402
IC2403
X2401
X2402
CP2405

## DIGITAL (BOTTOM SIDE)

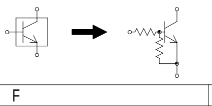

CEF169A
IC2404
IC2406
IC3401
IC3402
IC3403
IC3404
CP2403
CP2404

# MPEG/MICON/DSP/RF_AMP SCHEMATIC DIAGRAM

## (DVD PCB)


FROM/TO MEMORY
P.CON+3.3V_D
GND
(D_GND)
JG001
JG002
JG003
JG004
JG005
JG006
JG007
JG008
JG009
BOOT2
BOOT1
DUPTD1
DUPRD1
DUPTD0
DUPRD0
P.CON+5V_D
D4005
1SS355
C4038
HA0
HA1
HA2
HA3
HA4
HA5
HA6
HA7
HA8
HA9
HA10
HA11
HA12
HA13
HA14
HA15
HA16
HA17
HA18
HA19
HA20
HD0
HD1
HD2
HD3
HD4
HD5
HD6
HD7
HD8
HD9
HD10
HD11
HD12
HD13
HD14
HD15
MEMCS1
MEMCS0
RD
WR
SD_A0
SD_A1
SD_A2
SD_A3
SD_A4
SD_A5
SD_A6
SD_A7
SD_A8
SD_A9
SD_A10
SD_A11
SD_D0
SD_D1
SD_D2
SD_D3
SD_D4
SD_D5
SD_D6
SD_D7
SD_D8
SD_D9
SD_D10
SD_D11
SD_D12
SD_D13
SD_D14
SD_D15
RAMCS0#
RAMCS1#
RAMRAS#
RAMCAS#
SD_BA0
RAMDQM
RAMWE#
RAMCLK
RAMCKE
BOOTSEL1
BOOTSEL2
MPEG/MICON/DSP/RF_AMP IC
IC4001
ZR36862PQCG-B
208 SSCTXD
207 SSCCLK
206 DUPTD1
205 DUPRD1
160 A
159 G
158 RFN
157 RFP
53 RAMADD(4)
54 RAMADD(3)
55 RAMADD(5)
56 RAMADD(2)
100 RAMDAT(14)
101 GNDP
102 RAMDAT(1)
103 RAMDAT(15)
104 RAMDAT(0)
SSCTXD
FPCSTRB
IRRCV
DUPTD1
DUPRD1
DUPTD0
DUPRD0
FOCUS_PWM
SPINDLE_PWM
SLED_PWM
TRACK_PWM
TRAY_OPEN
TRAY_CLOSE
DVD_CD
(DVD-L/CD-H)
TOUT_SW
TIN
DRVSB
(MUTE-L)
DVD_LD
CD_LD
DVD/CDPD
(VR_DVD)
(VR_CD)
VC
OPU_F
SPDL_SENS+
OPU_E
SPDL_SENS-
OPU_D
OPU_C
OPU_B
OPU_A
RF
(AFEGND)
TACT_OFFSET
FACT_OFFSET
RFINN
RFINP
(RF_GND)
(A_GND)
(D_GND)
VDDPWM
+1.8V
+3.3V
VDDDAC
VDDAFERF
DUPTD1
W827
W817
RDY[I/O[0]]
RX/RDY[I/O[0]]
P.CON+3.3V_D
B4002 (120mA)
B4003 (250mA)
B4005 (130mA)
B4015
B4001
B4016
MMZ1608R102CT
RESET
DAC_VIDEO_C
DAC_VIDEO_B
DAC_VIDEO_D
DAC_VIDEO_A
DAC_VIDEO_E
P-H/I-L
X4001
27MHz
100GT0272C
HOME
ML
MC
MD
TP4004
TP4005
TP4006
TP4007
TP4008
TP4009
TP4010
W842
D1_2
D1_1
SYS_MUTE
I2CCLK
I2CDAT
JG021
JG024
JG028
JG020
AMCLK
ABCLK
ALRCLK
ASDATA0
IAMCLK
IABCLK
IALRCLK
ASDATA1
ASDATA2
MIC_ON
(PM1)
SPDIF
B4010
R4071
B4006 (250mA)
(D_GND)
(A_GND)
D4008
1SS355
FROM/TO AUDIO/VIDEO
SYS_MUTE
DAC_VIDEO_A
DAC_VIDEO_C
DAC_VIDEO_B
ASDATA0
ABCLK
ALRCLK
AMCLK
MD
MC
ML
RESET
SPDIF
DUPRD1
SSCCLK
SSCRXD
SSCTXD
RX/RDY[I/O[0]]
FROM/TO MOTOR DRIVER
VDDPWM3.3V
TRAY_OPEN
TRAY_CLOSE
HOME
TOUT_SW
TIN_SW
DVD_CD
DRVSB
RF
OPU_A
OPU_B
OPU_C
OPU_D
OPU_E
OPU_F
VC
SPDL_SENS-
SPDL_SENS+
DVD/CDPD
DVD_LD
CD_LD
SPINDLE_PWM
SLED_PWM
TRACK_PWM
FOCUS_PWM
GND
(RF_GND)
FROM REGULATOR2
P.CON+3.3V_D
P.CON+5V_D
P.CON+1.8V_D
GND
DIGITAL AUDIO SIGNAL(PB)
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8

CAUTION: DIGITAL TRANSISTOR



**CAUTION** SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

**ATTENTION** :LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

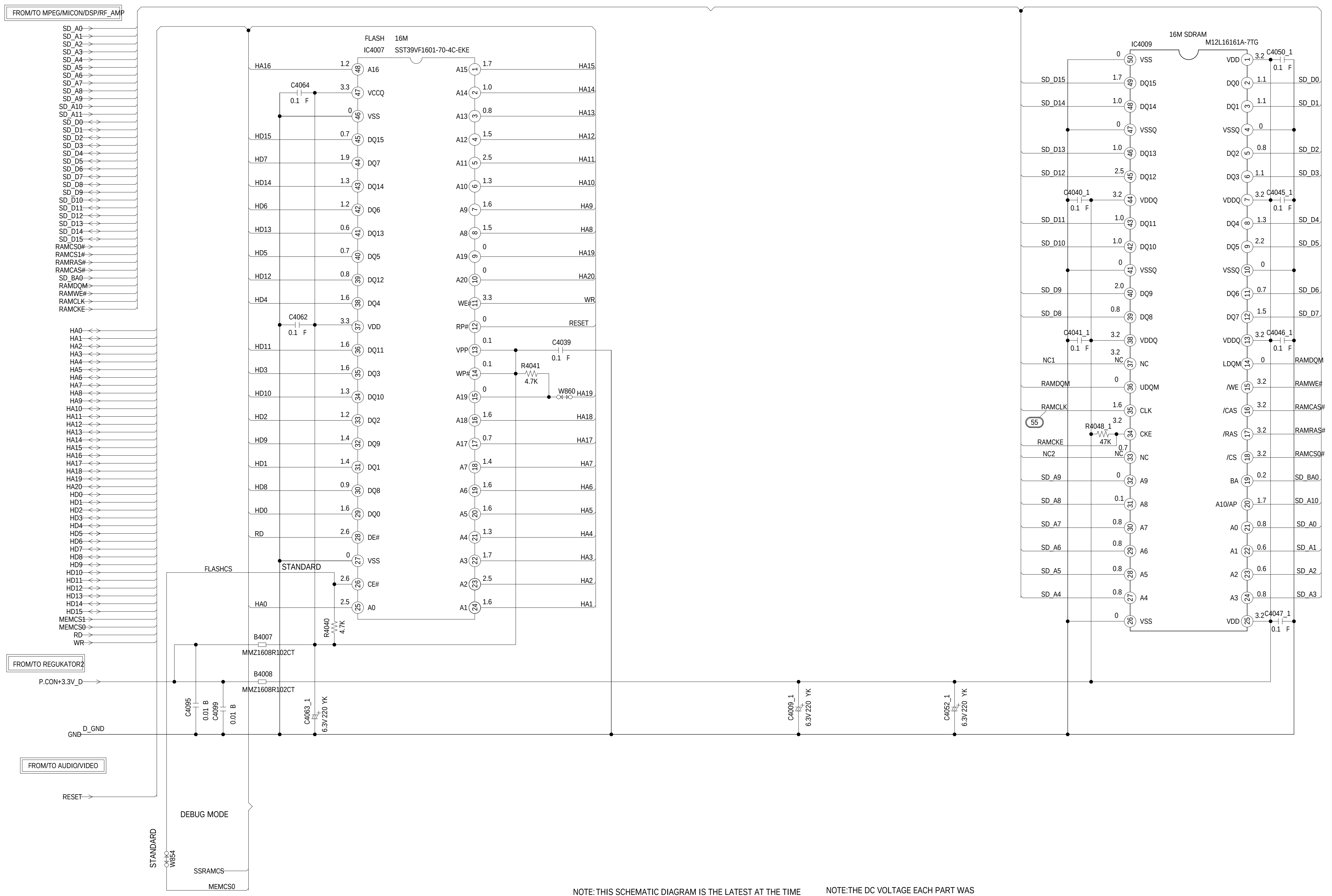
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE:THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCB130
DMF066

# MEMORY2 SCHEMATIC DIAGRAM

## (DVD PCB)


FROM/TO MPEG/MICON/DSP/RF_AMP
SD_A0
SD_A1
SD_A2
SD_A3
SD_A4
SD_A5
SD_A6
SD_A7
SD_A8
SD_A9
SD_A10
SD_A11
SD_D0
SD_D1
SD_D2
SD_D3
SD_D4
SD_D5
SD_D6
SD_D7
SD_D8
SD_D9
SD_D10
SD_D11
SD_D12
SD_D13
SD_D14
SD_D15
RAMCS0#
RAMCS1#
RAMRAS#
RAMCAS#
SD_BA0
RAMDQM
RAMWE#
RAMCLK
RAMCKE
HA0
HA1
HA2
HA3
HA4
HA5
HA6
HA7
HA8
HA9
HA10
HA11
HA12
HA13
HA14
HA15
HA16
HA17
HA18
HA19
HA20
HD0
HD1
HD2
HD3
HD4
HD5
HD6
HD7
HD8
HD9
HD10
HD11
HD12
HD13
HD14
HD15
MEMCS1
MEMCS0
RD
WR
FROM/TO REGUKATOR2
P.CON+3.3V_D
D_GND
GND
FROM/TO AUDIO/VIDEO
RESET
FLASH 16M
IC4007 SST39VF1601-70-4C-EKE
A16
VCCQ
VSS
DQ15
DQ7
DQ14
DQ6
DQ13
DQ5
DQ12
DQ4
VDD
DQ11
DQ3
DQ10
DQ2
DQ9
DQ1
DQ8
DQ0
DE#
VSS
CE#
A0
A15
A14
A13
A12
A11
A10
A9
A8
A19
A20
WE#
RP#
VPP
WP#
A19
A18
A17
A7
A6
A5
A4
A3
A2
A1
C4064 0.1 F
C4062 0.1 F
C4039 0.1 F
R4041 4.7K
W860
R4040 4.7K
FLASHCS
STANDARD
B4007 MMZ1608R102CT
B4008 MMZ1608R102CT
C4095 0.01 B
C4099 0.01 B
C4063_1 6.3V 220 YK
C4009_1 6.3V 220 YK
C4052_1 6.3V 220 YK
DEBUG MODE
STANDARD
W854
SSRAMCS
MEMCS0
16M SDRAM
IC4009 M12L16161A-7TG
VSS
DQ15
DQ14
VSSQ
DQ13
DQ12
VDDQ
DQ11
DQ10
VSSQ
DQ9
DQ8
VDDQ
NC
UDQM
CLK
CKE
NC
A9
A8
A7
A6
A5
A4
VSS
VDD
DQ0
DQ1
VSSQ
DQ2
DQ3
VDDQ
DQ4
DQ5
VSSQ
DQ6
DQ7
VDDQ
LDQM
/WE
/CAS
/RAS
/CS
BA
A10/AP
A0
A1
A2
A3
VDD
C4050_1 0.1 F
C4040_1 0.1 F
C4045_1 0.1 F
C4041_1 0.1 F
C4046_1 0.1 F
C4047_1 0.1 F
R4048_1 47K
NC1
NC2
RAMCKE
55
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
DURING PLAYBACK.

PCB130
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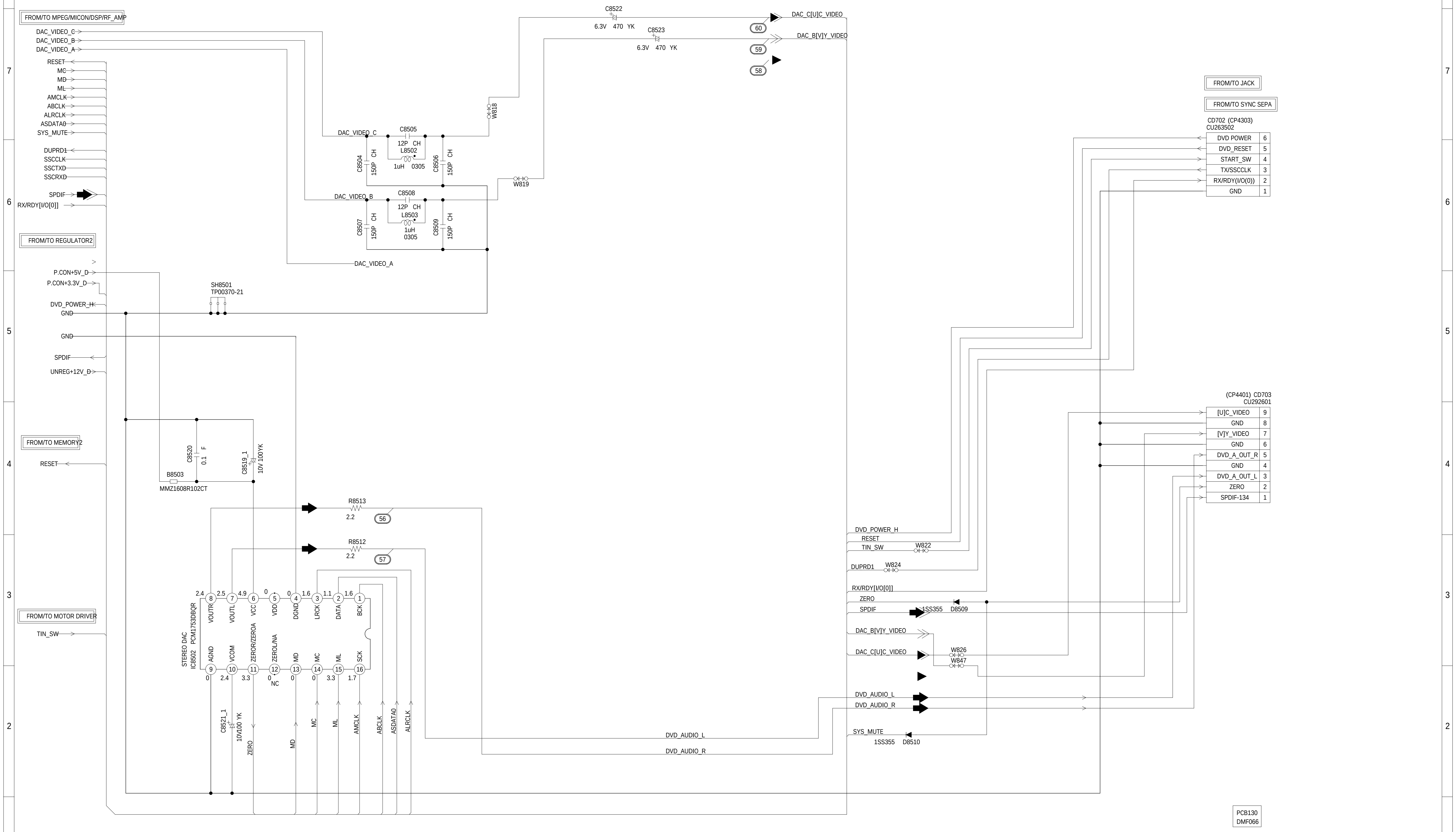
# AUDIO/VIDEO SCHEMATIC DIAGRAM

## (DVD PCB)


FROM/TO MPEG/MICON/DSP/RF_AMP
DAC_VIDEO_C
DAC_VIDEO_B
DAC_VIDEO_A
RESET
MC
MD
ML
AMCLK
ABCLK
ALRCLK
ASDATA0
SYS_MUTE
DUPRD1
SSCCLK
SSCTXD
SSCRXD
SPDIF
RX/RDY[I/O[0]]
FROM/TO REGULATOR2
P.CON+5V_D
P.CON+3.3V_D
DVD_POWER_H
GND
GND
SPDIF
UNREG+12V_D
FROM/TO MEMORY2
RESET
FROM/TO MOTOR DRIVER
TIN_SW
C8522
6.3V 470 YK
C8523
6.3V 470 YK
DAC_C[U]C_VIDEO
DAC_B[V]Y_VIDEO
60
59
58
W818
W819
DAC_VIDEO_C
C8505
12P CH
L8502
1uH 0305
C8504 150P CH
C8506 150P CH
DAC_VIDEO_B
C8508
12P CH
L8503
1uH 0305
C8507 150P CH
C8509 150P CH
DAC_VIDEO_A
SH8501
TP00370-21
C8520 0.1 F
C8519_1 10V 100YK
B8503
MMZ1608R102CT
R8513 2.2
56
R8512 2.2
57
STEREO DAC
IC8502 PCM1753DBQR
VOUTR VOUTL VCC VDD DGND LRCK DATA BCK
8 7 6 5 4 3 2 1
2.4 2.5 4.9 0 0 1.6 1.1 1.6
AGND VCOM ZEROR/ZEROA ZEROL/NA MD MC ML SCK
9 10 11 12 13 14 15 16
0 2.4 3.3 0 NC 0 0 3.3 1.7
C8521_1 10V100 YK
ZERO
MD
MC
ML
AMCLK
ABCLK
ASDATA0
ALRCLK
DVD_AUDIO_L
DVD_AUDIO_R
FROM/TO JACK
FROM/TO SYNC SEPA
CD702 (CP4303)
CU263502
DVD POWER 6
DVD_RESET 5
START_SW 4
TX/SSCCLK 3
RX/RDY(I/O(0)) 2
GND 1
(CP4401) CD703
CU292601
[U]C_VIDEO 9
GND 8
[V]Y_VIDEO 7
GND 6
DVD_A_OUT_R 5
GND 4
DVD_A_OUT_L 3
ZERO 2
SPDIF-134 1
DVD_POWER_H
RESET
TIN_SW
W822
DUPRD1
W824
RX/RDY[I/O[0]]
ZERO
SPDIF
1SS355 D8509
DAC_B[V]Y_VIDEO
DAC_C[U]C_VIDEO
W826
W847
DVD_AUDIO_L
DVD_AUDIO_R
SYS_MUTE
1SS355 D8510

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◀ PLAYBACK LUMINANCE SIGNAL
◀ R.SIGNAL+COMPONENT SIGNAL(U)
≪ B.SIGNAL+COMPONENT SIGNAL(V)

⇐ DIGITAL AUDIO SIGNAL(PB)
⬅ AUDIO SIGNAL(PB)

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

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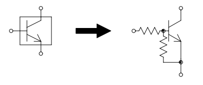
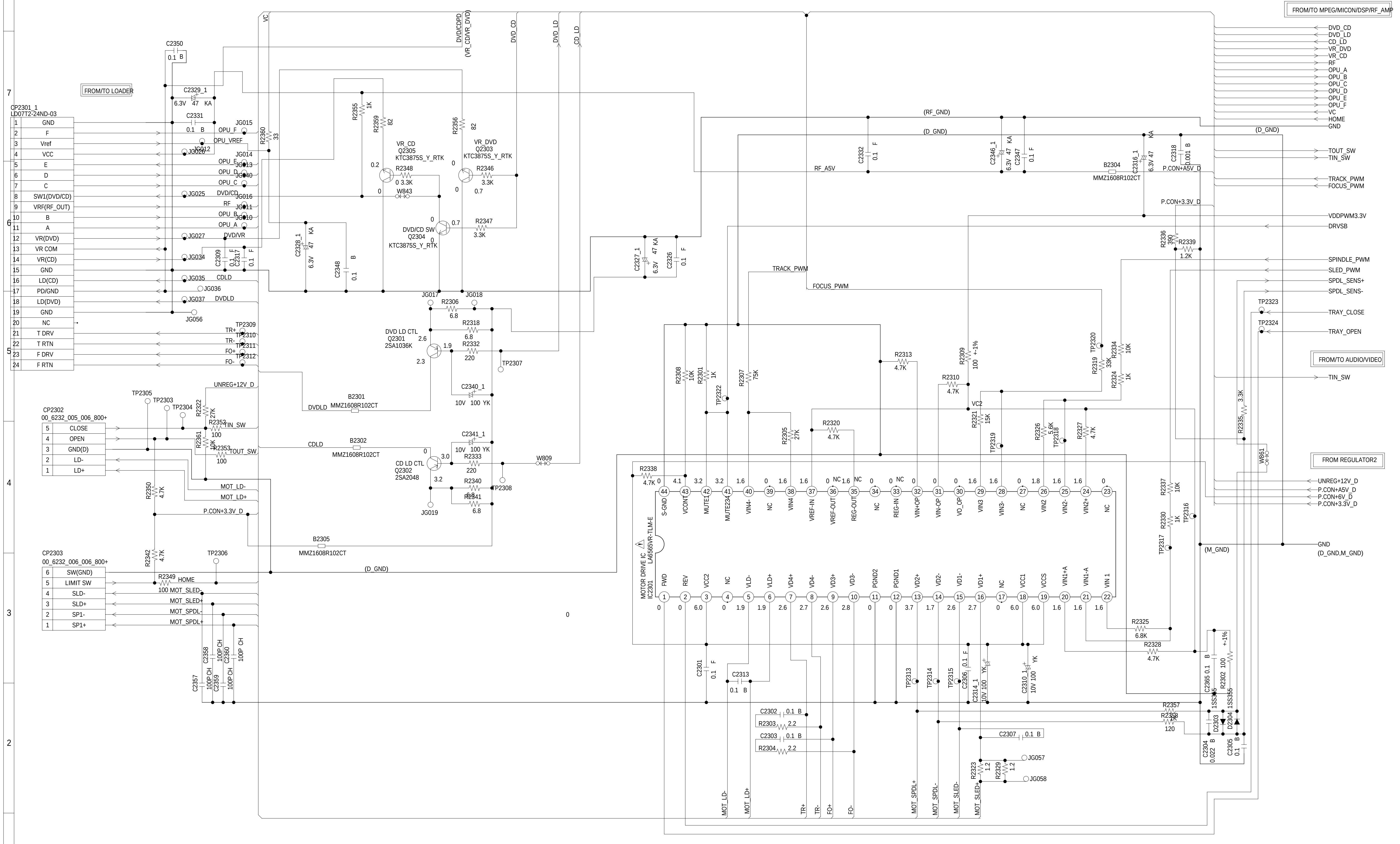
CAUTION: DIGITAL TRANSISTOR



# MOTOR DRIVE SCHEMATIC DIAGRAM

## (DVD PCB)


FROM/TO LOADER
CP2301_1
LD07T2-24ND-03
1 GND
2 F
3 Vref
4 VCC
5 E
6 D
7 C
8 SW1(DVD/CD)
9 VRF(RF_OUT)
10 B
11 A
12 VR(DVD)
13 VR COM
14 VR(CD)
15 GND
16 LD(CD)
17 PD/GND
18 LD(DVD)
19 GND
20 NC
21 T DRV
22 T RTN
23 F DRV
24 F RTN
C2350 0.1 B
C2329_1 6.3V 47 KA
C2331 0.1 B
JG015 OPU_F
OPU_VREF
JG012 JG026
JG014
OPU_E JG013
OPU_D JG040
OPU_C
JG025 DVD/CD JG016
RF JG011
OPU_B JG010
OPU_A
JG027 DVD/VR
JG034
C2309 0.1 F
C2317 0.1 F
JG035 CDLD
JG036
JG037 DVDLD
JG056
TP2309 TR+
TP2310 TR-
TP2311 FO+
TP2312 FO-
R2360 33
VC
C2328_1 6.3V 47 KA
C2348 0.1 B
R2355 1K
R2359 82
VR_CD Q2305 KTC3875S_Y_RTK
R2348 3.3K
W843
R2356 82
VR_DVD Q2303 KTC3875S_Y_RTK
R2346 3.3K
DVD/CD SW Q2304 KTC3875S_Y_RTK
R2347 3.3K
DVD/CDPD (VR_CD/VR_DVD)
DVD_CD
DVD_LD
CD_LD
JG017 JG018
R2306 6.8
R2318 6.8
R2332 220
DVD LD CTL Q2301 2SA1036K
TP2307
C2340_1 10V 100 YK
B2301 MMZ1608R102CT
DVDLD
CDLD
B2302 MMZ1608R102CT
C2341_1 10V 100 YK
CD LD CTL Q2302 2SA2048
R2333 220
R2340 6.8
R2341 6.8
TP2308
JG019
W809
C2327_1 6.3V 47 KA
C2326 0.1 F
CP2302
00_6232_005_006_800+
5 CLOSE
4 OPEN
3 GND(D)
2 LD-
1 LD+
TP2305 TP2303 TP2304
UNREG+12V_D
R2322 27K
R2352 100 TIN_SW
R2361 10K
R2353 100 TOUT_SW
MOT_LD-
MOT_LD+
R2350 4.7K
P.CON+3.3V_D
B2305 MMZ1608R102CT
CP2303
00_6232_006_006_800+
6 SW(GND)
5 LIMIT SW
4 SLD-
3 SLD+
2 SP1-
1 SP1+
R2342 4.7K
TP2306
R2349 100 HOME
MOT_SLED-
MOT_SLED+
MOT_SPDL-
MOT_SPDL+
(D_GND)
C2358 100P CH
C2360 100P CH
C2357 100P CH
C2359 100P CH
(RF_GND)
(D_GND)
RF_A5V
C2332 0.1 F
C2346_1 6.3V 47 KA
C2347 0.1 F
B2304 MMZ1608R102CT
C2316_1 6.3V 47 KA
C2318 0.001 B
P.CON+A5V_D
P.CON+3.3V_D
TRACK_PWM
FOCUS_PWM
R2336 390
R2339 1.2K
FROM/TO MPEG/MICON/DSP/RF_AMP
DVD_CD
DVD_LD
CD_LD
VR_DVD
VR_CD
RF
OPU_A
OPU_B
OPU_C
OPU_D
OPU_E
OPU_F
VC
HOME
GND
TOUT_SW
TIN_SW
TRACK_PWM
FOCUS_PWM
VDDPWM3.3V
DRVSB
SPINDLE_PWM
SLED_PWM
SPDL_SENS+
SPDL_SENS-
TP2323 TRAY_CLOSE
TP2324 TRAY_OPEN
FROM/TO AUDIO/VIDEO
TIN_SW
FROM REGULATOR2
UNREG+12V_D
P.CON+A5V_D
P.CON+6V_D
P.CON+3.3V_D
GND
(D_GND,M_GND)
(M_GND)
R2308 10K
R2301 1K
TP2322
R2307 75K
R2313 4.7K
R2309 100 +-1%
R2310 4.7K
VC2
R2321 15K
TP2319
R2305 27K
R2320 4.7K
TP2320
R2319 33K
R2334 10K
R2324 1K
R2326 5.6K
TP2318
R2327 4.7K
R2335 3.3K
W861
R2338 4.7K
R2337 10K
R2330 1K
TP2317
TP2316
MOTOR DRIVE IC
IC2301
LA6565VR-TLM-E
44 S-GND
43 VCONT
42 MUTE1
41 MUTE234
40 VIN4-
39 NC
38 VIN4
37 VREF-IN
36 VREF-OUT
35 REG-OUT
34 NC
33 REG-IN
32 VIN+OP
31 VIN-OP
30 VO_OP
29 VIN3
28 VIN3-
27 NC
26 VIN2
25 VIN2-
24 VIN2+
23 NC
1 FWD
2 REV
3 VCC2
4 NC
5 VLD-
6 VLD+
7 VD4+
8 VD4-
9 VD3+
10 VD3-
11 PGND2
12 PGND1
13 VD2+
14 VD2-
15 VD1-
16 VD1+
17 NC
18 VCC1
19 VCCS
20 VIN1+A
21 VIN1-A
22 VIN 1
0 4.1 3.2 3.2 1.6 0 1.6 1.6 0 NC 1.6 NC 0 0 NC 0 0 0 1.6 1.6 0 1.8 1.6 1.6 0
0 0 6.0 0 1.9 1.9 2.6 2.7 2.6 2.8 0 0 3.7 1.7 2.6 2.7 0 6.0 6.0 1.6 1.6 1.6
0
R2325 6.8K
R2328 4.7K
C2365 0.1 B
R2302 100 +-1%
1SS355 D2303
1SS355 D2304
R2357 1K
R2358 120
C2304 0.022 B
C2305 0.1 B
C2301 0.1 F
C2313 0.1 B
TP2313 TP2314 TP2315
C2306 0.1 F
C2314_1 10V 100 YK
C2310_1 10V 100 YK
C2302 0.1 B
R2303 2.2
C2303 0.1 B
R2304 2.2
C2307 0.1 B
JG057
JG058
R2323 1.2
R2329 1.2
MOT_LD-
MOT_LD+
TR+
TR-
FO+
FO-
MOT_SPDL+
MOT_SPDL-
MOT_SLED-
MOT_SLED+

CAUTION:SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

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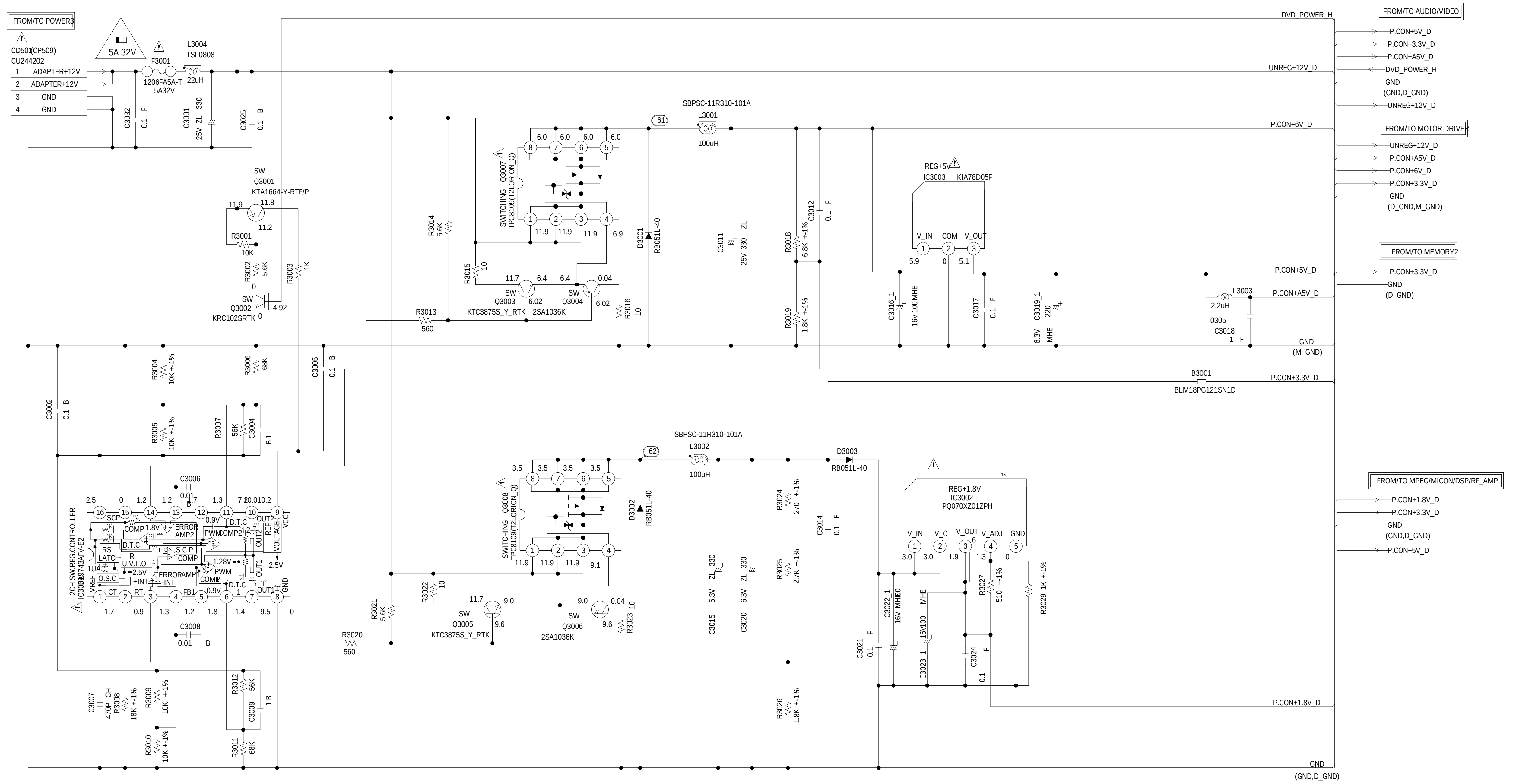
PCB130
DMF066

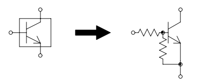
# REGULATOR2 SCHEMATIC DIAGRAM

## (DVD PCB)



FROM/TO POWER3
CD501(CP509)
CU244202
1 ADAPTER+12V
2 ADAPTER+12V
3 GND
4 GND
5A 32V
F3001
1206FA5A-T
5A32V
L3004
TSL0808
22uH
C3032 0.1 F
C3001 25V ZL 330
C3025 0.1 B
SW
Q3001
KTA1664-Y-RTF/P
R3001 10K
R3002 5.6K
R3003 1K
SW
Q3002
KRC102SRTK
R3004 10K +-1%
R3005 10K +-1%
R3006 68K
R3007 56K
C3004 B 1
C3005 0.1 B
C3002 0.1 B
C3006 0.01 B
C3008 0.01 B
2CH SW REG.CONTROLLER
IC3001
BA9743AFV-E2
SCP
COMP
ERROR AMP2
D.T.C
PWM
COMP2
OUT2
REF VOLTAGE
VCC
RS LATCH
R
U.V.L.O.
S.C.P
1.28V
1UA
VREF
O.S.C
+INT
ERRORAMP1
-INT
PWM COMP
OUT1
CT
RT
FB1
GND
C3007 470P CH
R3008 18K +-1%
R3009 10K +-1%
R3010 10K +-1%
R3011 68K
R3012 56K
C3009 1 B
SWITCHING Q3007
TPC8109(T2LORION_Q)
SWITCHING Q3008
TPC8109(T2LORION_Q)
R3014 5.6K
R3015 10
SW Q3003 KTC3875S_Y_RTK
SW Q3004 2SA1036K
R3013 560
R3016 10
D3001 RB051L-40
SBPSC-11R310-101A
L3001
100uH
C3011 25V 330 ZL
R3018 6.8K +-1%
C3012 0.1 F
R3019 1.8K +-1%
REG+5V
IC3003 KIA78D05F
V_IN COM V_OUT
C3016_1 16V 100 MHE
C3017 0.1 F
C3019_1 6.3V 220 MHE
L3003
2.2uH
0305
C3018 1 F
R3021 5.6K
R3022 10
R3020 560
SW Q3005 KTC3875S_Y_RTK
SW Q3006 2SA1036K
R3023 10
D3002 RB051L-40
SBPSC-11R310-101A
L3002
100uH
C3015 6.3V ZL 330
C3020 6.3V ZL 330
R3024 270 +-1%
C3014 0.1 F
R3025 2.7K +-1%
R3026 1.8K +-1%
D3003
RB051L-40
B3001
BLM18PG121SN1D
REG+1.8V
IC3002
PQ070XZ01ZPH
V_IN V_C V_OUT V_ADJ GND
C3021 0.1 F
C3022_1 16V MHE 100
C3023_1 16V 100 MHE
C3024 0.1 F
R3027 510 +-1%
R3029 1K +-1%
DVD_POWER_H
UNREG+12V_D
P.CON+6V_D
P.CON+5V_D
P.CON+A5V_D
GND (M_GND)
P.CON+3.3V_D
P.CON+1.8V_D
GND (GND,D_GND)
FROM/TO AUDIO/VIDEO
P.CON+5V_D
P.CON+3.3V_D
P.CON+A5V_D
DVD_POWER_H
GND (GND,D_GND)
UNREG+12V_D
FROM/TO MOTOR DRIVER
UNREG+12V_D
P.CON+A5V_D
P.CON+6V_D
P.CON+3.3V_D
GND (D_GND,M_GND)
FROM/TO MEMORY2
P.CON+3.3V_D
GND (D_GND)
FROM/TO MPEG/MICON/DSP/RF_AMP
P.CON+1.8V_D
P.CON+3.3V_D
GND (GND,D_GND)
P.CON+5V_D

CAUTION: DIGITAL TRANSISTOR



5A 32V

CAUTION:FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 5A 32V (F3001)

ATTENTION:POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 5A 32V (F3001)

CAUTION:F3001 IS MANUFACTURED BY COOPER INDUSTRIES INC., TYPE 1206FA-T.

CAUTION:SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION:LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

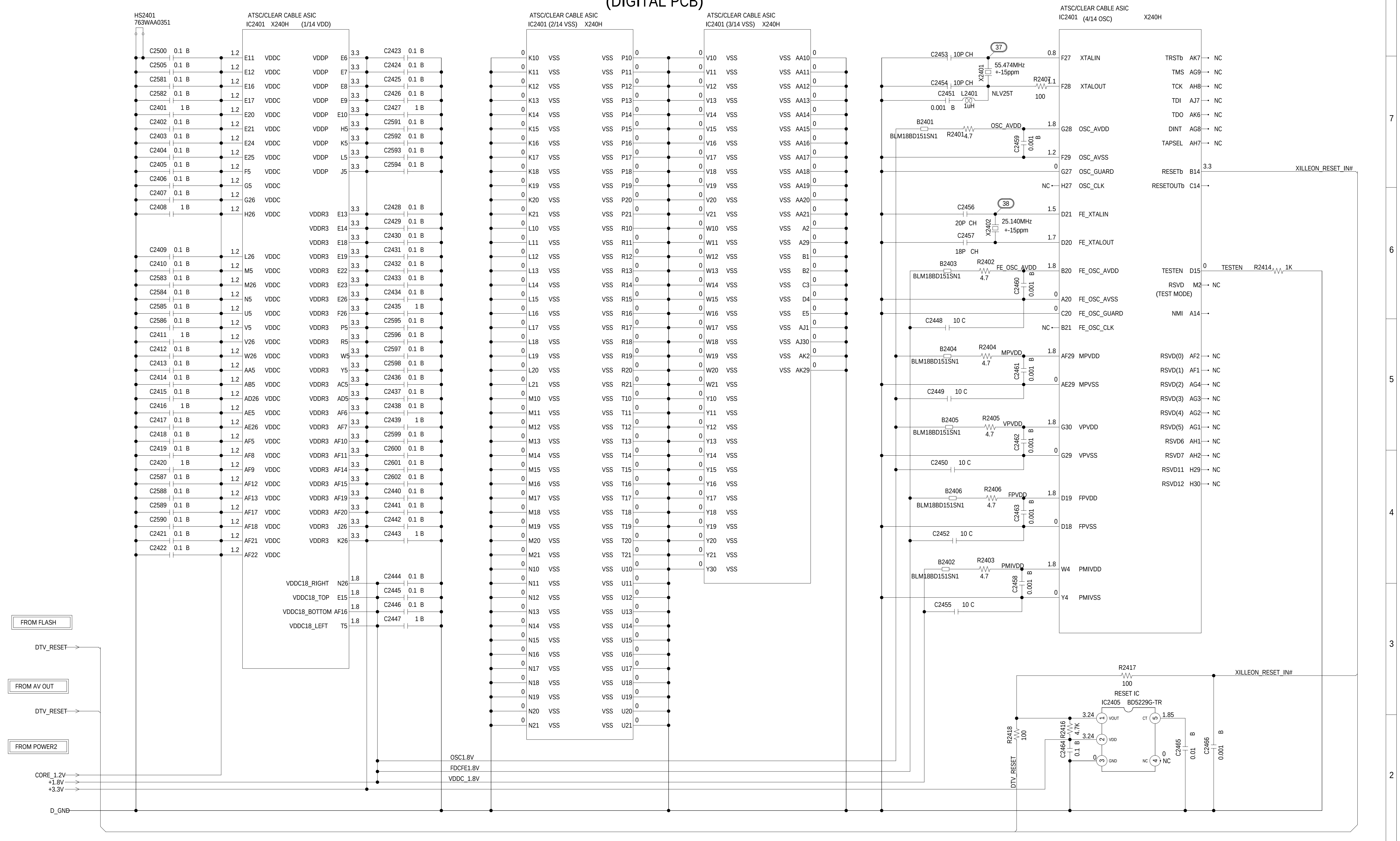
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE:THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCB130
DMF066

# ASIC SCHEMATIC DIAGRAM

## (DIGITAL PCB)


HS2401
763WAA0351
ATSC/CLEAR CABLE ASIC
IC2401 X240H (1/14 VDD)
ATSC/CLEAR CABLE ASIC
IC2401 (2/14 VSS) X240H
ATSC/CLEAR CABLE ASIC
IC2401 (3/14 VSS) X240H
ATSC/CLEAR CABLE ASIC
IC2401 (4/14 OSC) X240H
VDDC
VDDP
VDDR3
VDDC18_RIGHT
VDDC18_TOP
VDDC18_BOTTOM
VDDC18_LEFT
VSS
X2401
55.474MHz
+-15ppm
X2402
25.140MHz
+-15ppm
L2401
1uH
NLV25T
XTALIN
XTALOUT
OSC_AVDD
OSC_AVSS
OSC_GUARD
OSC_CLK
FE_XTALIN
FE_XTALOUT
FE_OSC_AVDD
FE_OSC_AVSS
FE_OSC_GUARD
FE_OSC_CLK
MPVDD
MPVSS
VPVDD
VPVSS
FPVDD
FPVSS
PMIVDD
PMIVSS
TRSTb
TMS
TCK
TDI
TDO
DINT
TAPSEL
RESETb
RESETOUTb
TESTEN
RSVD
(TEST MODE)
NMI
NC
BLM18BD151SN1
XILLEON_RESET_IN#
R2417
100
RESET IC
IC2405
BD5229G-TR
VOUT
VDD
GND
CT
R2418
R2416
4.7K
C2464
C2465
C2466
DTV_RESET
FROM FLASH
DTV_RESET
FROM AV OUT
DTV_RESET
FROM POWER2
CORE_1.2V
+1.8V
+3.3V
D_GND
OSC1.8V
FDCFE1.8V
VDDC_1.8V
37
38
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8

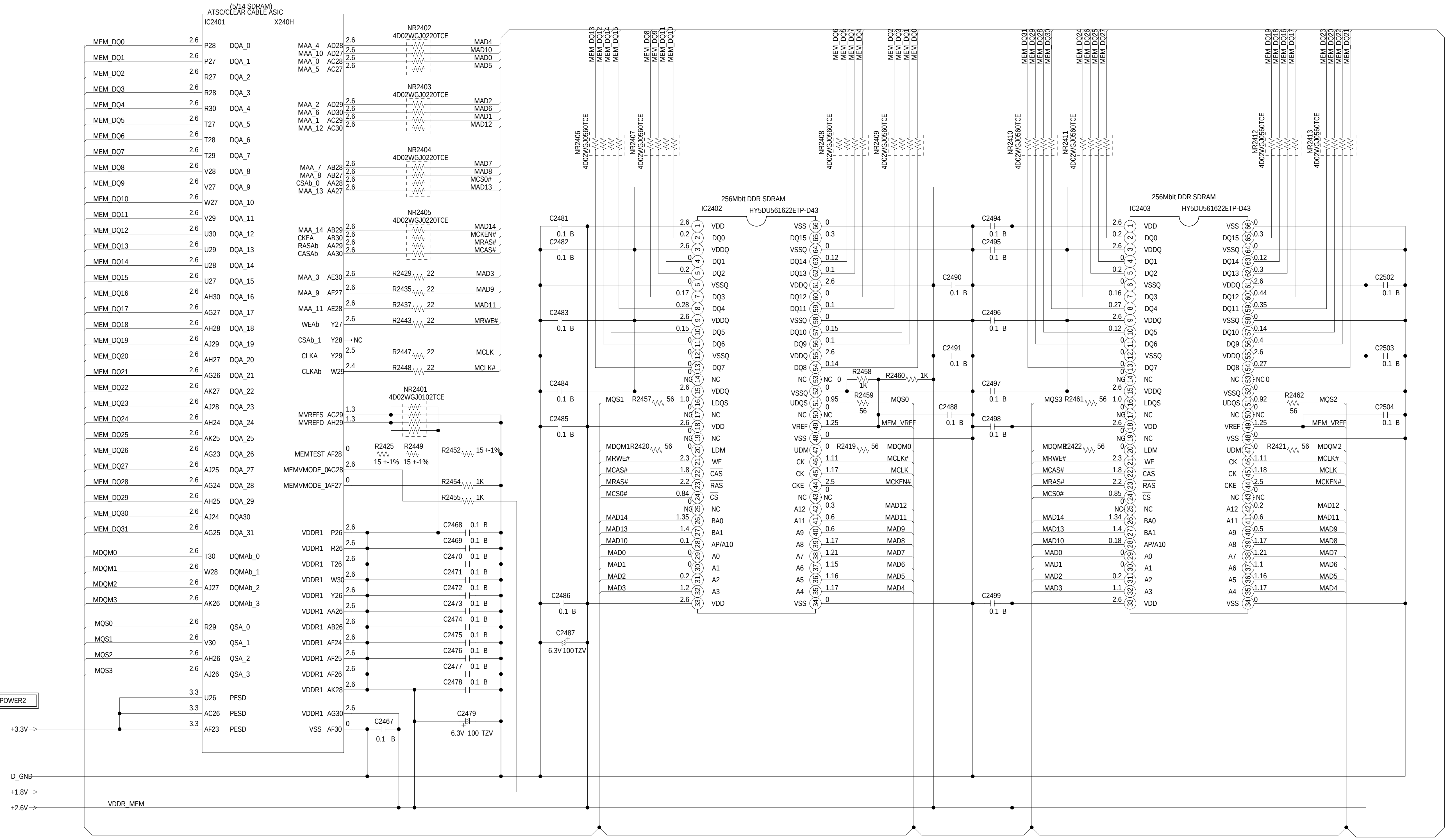
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEF169

# SDRAM SCHEMATIC DIAGRAM

## (DIGITAL PCB)



(5/14 SDRAM)
ATSC/CLEAR CABLE ASIC
IC2401
X240H
MEM_DQ0
MEM_DQ1
MEM_DQ31
MDQM0
MDQM1
MDQM2
MDQM3
MQS0
MQS1
MQS2
MQS3
FROM POWER2
+3.3V
D_GND
+1.8V
+2.6V
VDDR_MEM
NR2401
4D02WGJ0102TCE
NR2402
NR2403
NR2404
NR2405
4D02WGJ0220TCE
NR2406
NR2407
NR2408
NR2409
NR2410
NR2411
NR2412
NR2413
4D02WGJ0560TCE
MEMTEST
MEMVMODE_0
MEMVMODE_1
MVREFS
MVREFD
C2467
C2479
6.3V 100 TZV
C2487
6.3V 100TZV
256Mbit DDR SDRAM
IC2402
HY5DU561622ETP-D43
256Mbit DDR SDRAM
IC2403
HY5DU561622ETP-D43
MEM_VREF
MCLK
MCLK#
MCKEN#
MRAS#
MCAS#
MRWE#
MCS0#

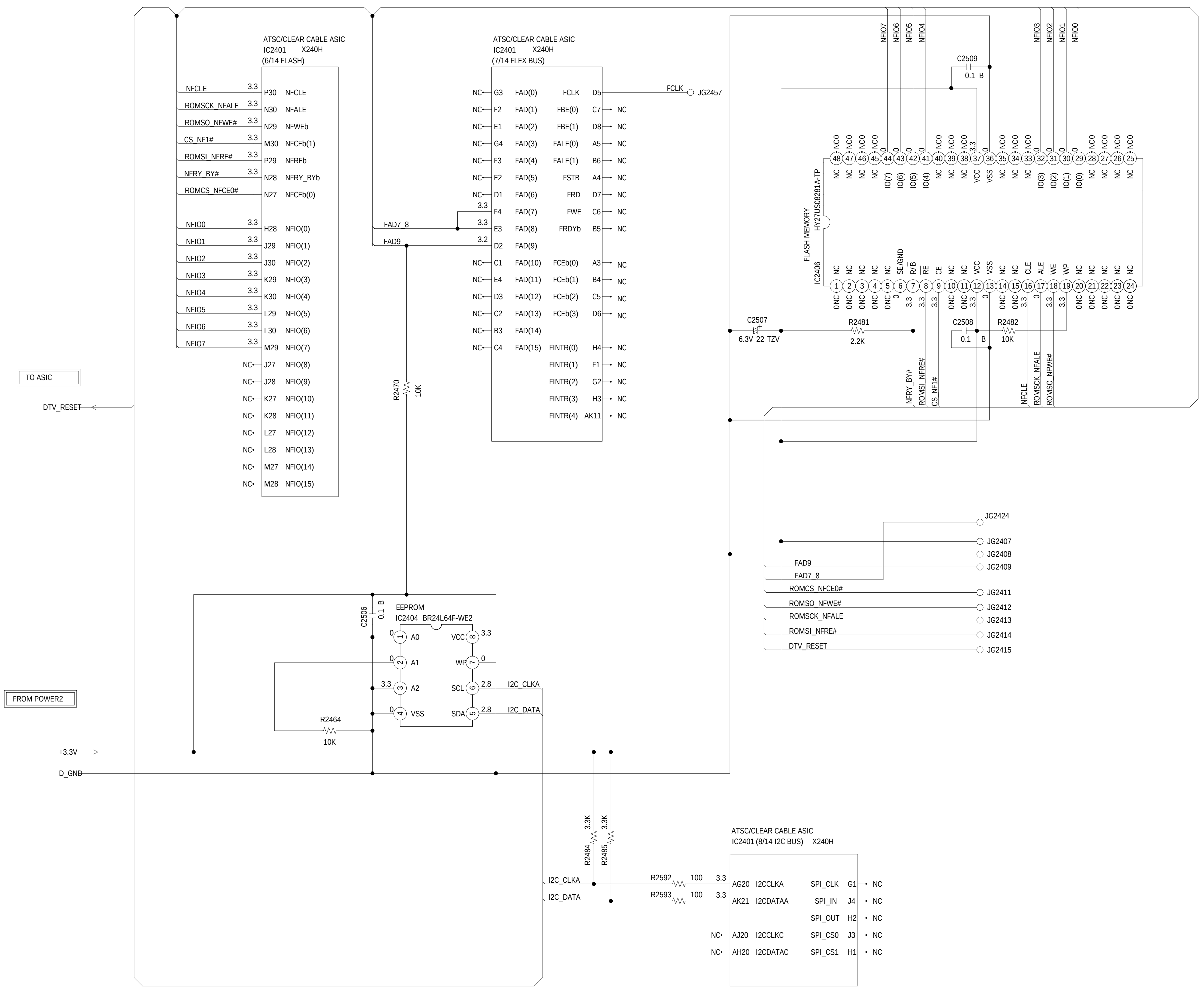
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEF169

# FLASH SCHEMATIC DIAGRAM

## (DIGITAL PCB)


ATSC/CLEAR CABLE ASIC
IC2401 X240H
(6/14 FLASH)
NFCLE
ROMSCK_NFALE
ROMSO_NFWE#
CS_NF1#
ROMSI_NFRE#
NFRY_BY#
ROMCS_NFCE0#
NFIO0
NFIO1
NFIO2
NFIO3
NFIO4
NFIO5
NFIO6
NFIO7
P30 NFCLE
N30 NFALE
N29 NFWEb
M30 NFCEb(1)
P29 NFREb
N28 NFRY_BYb
N27 NFCEb(0)
H28 NFIO(0)
J29 NFIO(1)
J30 NFIO(2)
K29 NFIO(3)
K30 NFIO(4)
L29 NFIO(5)
L30 NFIO(6)
M29 NFIO(7)
J27 NFIO(8)
J28 NFIO(9)
K27 NFIO(10)
K28 NFIO(11)
L27 NFIO(12)
L28 NFIO(13)
M27 NFIO(14)
M28 NFIO(15)
TO ASIC
DTV_RESET
FROM POWER2
+3.3V
D_GND
ATSC/CLEAR CABLE ASIC
IC2401 X240H
(7/14 FLEX BUS)
G3 FAD(0) FCLK D5
F2 FAD(1) FBE(0) C7
E1 FAD(2) FBE(1) D8
G4 FAD(3) FALE(0) A5
F3 FAD(4) FALE(1) B6
E2 FAD(5) FSTB A4
D1 FAD(6) FRD D7
F4 FAD(7) FWE C6
E3 FAD(8) FRDYb B5
D2 FAD(9)
C1 FAD(10) FCEb(0) A3
E4 FAD(11) FCEb(1) B4
D3 FAD(12) FCEb(2) C5
C2 FAD(13) FCEb(3) D6
B3 FAD(14)
C4 FAD(15) FINTR(0) H4
FINTR(1) F1
FINTR(2) G2
FINTR(3) H3
FINTR(4) AK11
FCLK
JG2457
FAD7_8
FAD9
R2470 10K
EEPROM
IC2404 BR24L64F-WE2
C2506 0.1 B
A0 A1 A2 VSS
VCC WP SCL SDA
I2C_CLKA
I2C_DATA
R2464 10K
FLASH MEMORY
HY27US08281A-TP
IC2406
NFIO7 NFIO6 NFIO5 NFIO4
NFIO3 NFIO2 NFIO1 NFIO0
C2509 0.1 B
IO(7) IO(6) IO(5) IO(4) VCC VSS IO(3) IO(2) IO(1) IO(0)
SE/GND R/B RE CE VCC VSS CLE ALE WE WP
C2507 6.3V 22 TZV
R2481 2.2K
C2508 0.1 B
R2482 10K
NFRY_BY#
ROMSI_NFRE#
CS_NF1#
NFCLE
ROMSCK_NFALE
ROMSO_NFWE#
JG2424
JG2407
JG2408
FAD9 JG2409
FAD7_8
ROMCS_NFCE0# JG2411
ROMSO_NFWE# JG2412
ROMSCK_NFALE JG2413
ROMSI_NFRE# JG2414
DTV_RESET JG2415
R2484 3.3K
R2485 3.3K
I2C_CLKA
I2C_DATA
R2592 100
R2593 100
ATSC/CLEAR CABLE ASIC
IC2401 (8/14 I2C BUS) X240H
AG20 I2CCLKA SPI_CLK G1
AK21 I2CDATAA SPI_IN J4
SPI_OUT H2
AJ20 I2CCLKC SPI_CS0 J3
AH20 I2CDATAC SPI_CS1 H1
NC

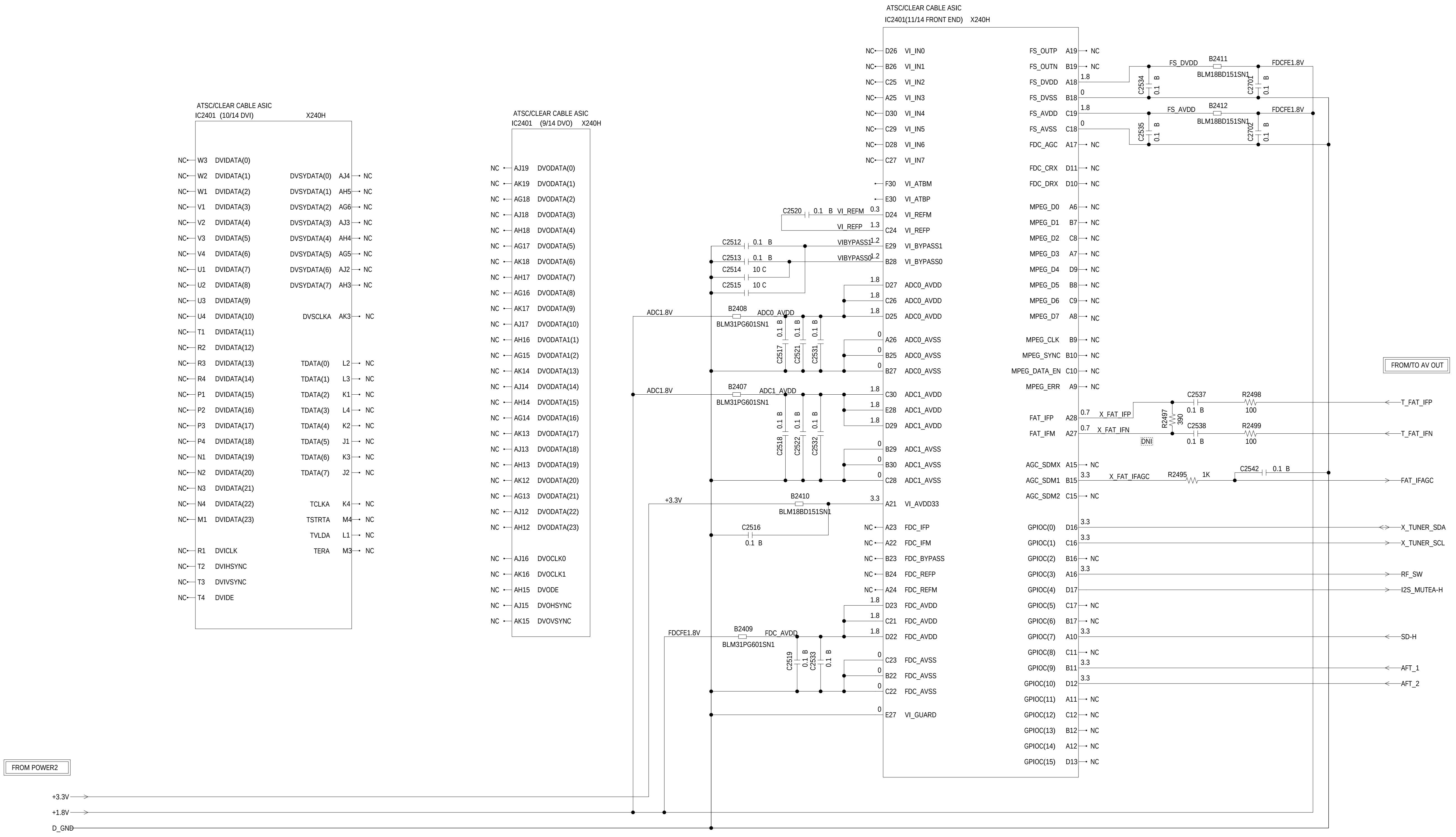
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEF169

# FRONT END SCHEMATIC DIAGRAM

## (DIGITAL PCB)


ATSC/CLEAR CABLE ASIC
IC2401 (10/14 DVI) X240H
NC W3 DVIDATA(0)
NC W2 DVIDATA(1)
NC W1 DVIDATA(2)
NC V1 DVIDATA(3)
NC V2 DVIDATA(4)
NC V3 DVIDATA(5)
NC V4 DVIDATA(6)
NC U1 DVIDATA(7)
NC U2 DVIDATA(8)
NC U3 DVIDATA(9)
NC U4 DVIDATA(10)
NC T1 DVIDATA(11)
NC R2 DVIDATA(12)
NC R3 DVIDATA(13)
NC R4 DVIDATA(14)
NC P1 DVIDATA(15)
NC P2 DVIDATA(16)
NC P3 DVIDATA(17)
NC P4 DVIDATA(18)
NC N1 DVIDATA(19)
NC N2 DVIDATA(20)
NC N3 DVIDATA(21)
NC N4 DVIDATA(22)
NC M1 DVIDATA(23)
NC R1 DVICLK
NC T2 DVIHSYNC
NC T3 DVIVSYNC
NC T4 DVIDE
DVSYDATA(0) AJ4 NC
DVSYDATA(1) AH5 NC
DVSYDATA(2) AG6 NC
DVSYDATA(3) AJ3 NC
DVSYDATA(4) AH4 NC
DVSYDATA(5) AG5 NC
DVSYDATA(6) AJ2 NC
DVSYDATA(7) AH3 NC
DVSCLKA AK3 NC
TDATA(0) L2 NC
TDATA(1) L3 NC
TDATA(2) K1 NC
TDATA(3) L4 NC
TDATA(4) K2 NC
TDATA(5) J1 NC
TDATA(6) K3 NC
TDATA(7) J2 NC
TCLKA K4 NC
TSTRTA M4 NC
TVLDA L1 NC
TERA M3 NC
ATSC/CLEAR CABLE ASIC
IC2401 (9/14 DVO) X240H
NC AJ19 DVODATA(0)
NC AK19 DVODATA(1)
NC AG18 DVODATA(2)
NC AJ18 DVODATA(3)
NC AH18 DVODATA(4)
NC AG17 DVODATA(5)
NC AK18 DVODATA(6)
NC AH17 DVODATA(7)
NC AG16 DVODATA(8)
NC AK17 DVODATA(9)
NC AJ17 DVODATA(10)
NC AH16 DVODATA1(1)
NC AG15 DVODATA1(2)
NC AK14 DVODATA(13)
NC AJ14 DVODATA(14)
NC AH14 DVODATA(15)
NC AG14 DVODATA(16)
NC AK13 DVODATA(17)
NC AJ13 DVODATA(18)
NC AH13 DVODATA(19)
NC AK12 DVODATA(20)
NC AG13 DVODATA(21)
NC AJ12 DVODATA(22)
NC AH12 DVODATA(23)
NC AJ16 DVOCLK0
NC AK16 DVOCLK1
NC AH15 DVODE
NC AJ15 DVOHSYNC
NC AK15 DVOVSYNC
ATSC/CLEAR CABLE ASIC
IC2401(11/14 FRONT END) X240H
NC D26 VI_IN0
NC B26 VI_IN1
NC C25 VI_IN2
NC A25 VI_IN3
NC D30 VI_IN4
NC C29 VI_IN5
NC D28 VI_IN6
NC C27 VI_IN7
F30 VI_ATBM
E30 VI_ATBP
C2520 0.1 B VI_REFM 0.3 D24 VI_REFM
VI_REFP 1.3 C24 VI_REFP
C2512 0.1 B VIBYPASS1 1.2 E29 VI_BYPASS1
C2513 0.1 B VIBYPASS0 1.2 B28 VI_BYPASS0
C2514 10 C
C2515 10 C
1.8 D27 ADC0_AVDD
1.8 C26 ADC0_AVDD
1.8 D25 ADC0_AVDD
ADC1.8V
B2408
BLM31PG601SN1
ADC0_AVDD
C2517 0.1 B
C2521 0.1 B
C2531 0.1 B
0 A26 ADC0_AVSS
0 B25 ADC0_AVSS
0 B27 ADC0_AVSS
ADC1.8V
B2407
BLM31PG601SN1
ADC1_AVDD
1.8 C30 ADC1_AVDD
1.8 E28 ADC1_AVDD
1.8 D29 ADC1_AVDD
C2518 0.1 B
C2522 0.1 B
C2532 0.1 B
0 B29 ADC1_AVSS
0 B30 ADC1_AVSS
0 C28 ADC1_AVSS
+3.3V
B2410
BLM18BD151SN1
3.3 A21 VI_AVDD33
C2516 0.1 B
NC A23 FDC_IFP
NC A22 FDC_IFM
NC B23 FDC_BYPASS
NC B24 FDC_REFP
NC A24 FDC_REFM
1.8 D23 FDC_AVDD
1.8 C21 FDC_AVDD
1.8 D22 FDC_AVDD
FDCFE1.8V
B2409
BLM31PG601SN1
FDC_AVDD
C2519 0.1 B
C2533 0.1 B
0 C23 FDC_AVSS
0 B22 FDC_AVSS
0 C22 FDC_AVSS
0 E27 VI_GUARD
FS_OUTP A19 NC
FS_OUTN B19 NC
FS_DVDD A18 1.8
FS_DVSS B18 0
FS_AVDD C19 1.8
FS_AVSS C18 0
FDC_AGC A17 NC
FS_DVDD
B2411
BLM18BD151SN1
FDCFE1.8V
C2534 0.1 B
C2701 0.1 B
FS_AVDD
B2412
BLM18BD151SN1
FDCFE1.8V
C2535 0.1 B
C2702 0.1 B
FDC_CRX D11 NC
FDC_DRX D10 NC
MPEG_D0 A6 NC
MPEG_D1 B7 NC
MPEG_D2 C8 NC
MPEG_D3 A7 NC
MPEG_D4 D9 NC
MPEG_D5 B8 NC
MPEG_D6 C9 NC
MPEG_D7 A8 NC
MPEG_CLK B9 NC
MPEG_SYNC B10 NC
MPEG_DATA_EN C10 NC
MPEG_ERR A9 NC
FROM/TO AV OUT
FAT_IFP A28 0.7 X_FAT_IFP
FAT_IFM A27 0.7 X_FAT_IFN
R2497 390
DNI
C2537 0.1 B
R2498 100
T_FAT_IFP
C2538 0.1 B
R2499 100
T_FAT_IFN
AGC_SDMX A15 NC
AGC_SDM1 B15 3.3 X_FAT_IFAGC
R2495 1K
C2542 0.1 B
FAT_IFAGC
AGC_SDM2 C15 NC
GPIOC(0) D16 3.3 X_TUNER_SDA
GPIOC(1) C16 3.3 X_TUNER_SCL
GPIOC(2) B16 NC
GPIOC(3) A16 3.3 RF_SW
GPIOC(4) D17 I2S_MUTEA-H
GPIOC(5) C17 NC
GPIOC(6) B17 NC
GPIOC(7) A10 3.3 SD-H
GPIOC(8) C11 NC
GPIOC(9) B11 3.3 AFT_1
GPIOC(10) D12 3.3 AFT_2
GPIOC(11) A11 NC
GPIOC(12) C12 NC
GPIOC(13) B12 NC
GPIOC(14) A12 NC
GPIOC(15) D13 NC
FROM POWER2
+3.3V
+1.8V
D_GND

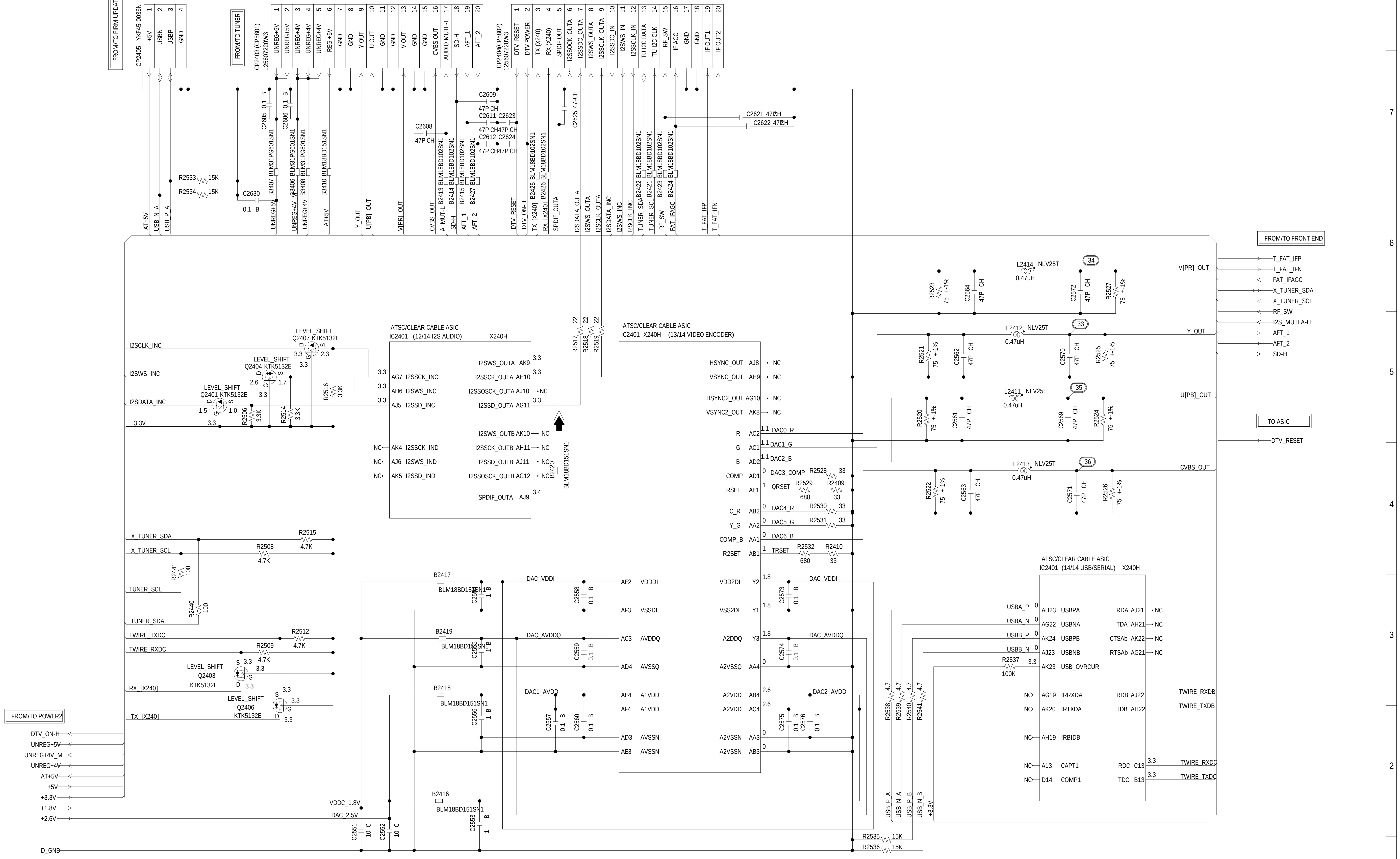
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEF169

# AV OUT SCHEMATIC DIAGRAM

## (DIGITAL PCB)



FROM/TO FIRM UPDATE
CP2405 YKF45-0036N
+5V
USBN
USBP
GND
FROM/TO TUNER
CP2403 (CP5801) 125607220W3
UNREG+5V
UNREG+5V
UNREG+4V
UNREG+4V
UNREG+4V
REG +5V
GND
GND
Y OUT
U OUT
GND
GND
V OUT
GND
GND
CVBS OUT
AUDIO MUTE-L
SD-H
AFT_1
AFT_2
CP2404(CP5802) 125607220W3
DTV_RESET
DTV POWER
TX (X240)
RX (X240)
SPDIF OUT
I2SSOCK_OUTA
I2SSDO_OUTA
I2SSCLK_OUTA
I2SWS_OUTA
I2SSDO_IN
I2SWS_IN
I2SSCLK_IN
TU I2C DATA
TU I2C CLK
RF_SW
IF AGC
GND
GND
IF OUT1
IF OUT2
C2605 0.1 B
C2606 0.1 B
C2609 47P CH
C2611 C2623 47P CH 47P CH
C2612 C2624 47P CH 47P CH
C2608 47P CH
C2625 47PCH
C2621 47PCH
C2622 47PCH
R2533 15K
R2534 15K
C2630 0.1 B
B3407 BLM31PG601SN1
B3406 BLM31PG601SN1
B3408 BLM31PG601SN1
B3410 BLM18BD151SN1
B2413 BLM18BD102SN1
B2414 BLM18BD102SN1
B2415 BLM18BD102SN1
B2427 BLM18BD102SN1
B2425 BLM18BD102SN1
B2426 BLM18BD102SN1
B2422 BLM18BD102SN1
B2421 BLM18BD102SN1
B2423 BLM18BD102SN1
B2424 BLM18BD102SN1
AT+5V
USB_N_A
USB_P_A
UNREG+5V
UNREG+4V_M
UNREG+4V
AT+5V
Y_OUT
U[PB]_OUT
V[PR]_OUT
CVBS_OUT
A_MUT-L
SD-H
AFT_1
AFT_2
DTV_RESET
DTV_ON-H
TX_[X240]
RX_[X240]
SPDIF_OUTA
I2SDATA_OUTA
I2SWS_OUTA
I2SCLK_OUTA
I2SDATA_INC
I2SWS_INC
I2SCLK_INC
TUNER_SDA
TUNER_SCL
RF_SW
FAT_IFAGC
T_FAT_IFP
T_FAT_IFN
FROM/TO FRONT END
T_FAT_IFP
T_FAT_IFN
FAT_IFAGC
X_TUNER_SDA
X_TUNER_SCL
RF_SW
I2S_MUTEA-H
AFT_1
AFT_2
SD-H
TO ASIC
DTV_RESET
LEVEL_SHIFT Q2407 KTK5132E
LEVEL_SHIFT Q2404 KTK5132E
LEVEL_SHIFT Q2401 KTK5132E
I2SCLK_INC
I2SWS_INC
I2SDATA_INC
+3.3V
R2506 3.3K
R2514 3.3K
R2516 3.3K
ATSC/CLEAR CABLE ASIC
IC2401 (12/14 I2S AUDIO) X240H
AG7 I2SSCK_INC
AH6 I2SWS_INC
AJ5 I2SSD_INC
AK4 I2SSCK_IND
AJ6 I2SWS_IND
AK5 I2SSD_IND
I2SWS_OUTA AK9
I2SSCK_OUTA AH10
I2SSOSCK_OUTA AJ10
I2SSD_OUTA AG11
I2SWS_OUTB AK10
I2SSCK_OUTB AH11
I2SSD_OUTB AJ11
I2SSOSCK_OUTB AG12
SPDIF_OUTA AJ9
R2517 22
R2518 22
R2519 22
B2420 BLM18BD151SN1
ATSC/CLEAR CABLE ASIC
IC2401 X240H (13/14 VIDEO ENCODER)
HSYNC_OUT AJ8
VSYNC_OUT AH9
HSYNC2_OUT AG10
VSYNC2_OUT AK8
R AC2
G AC1
B AD2
COMP AD1
RSET AE1
C_R AB2
Y_G AA2
COMP_B AA1
R2SET AB1
DAC0_R
DAC1_G
DAC2_B
DAC3_COMP
QRSET
DAC4_R
DAC5_G
DAC6_B
TRSET
R2528 33
R2529 680
R2409 33
R2530 33
R2531 33
R2532 680
R2410 33
VDD2DI Y2
VSS2DI Y1
A2DDQ Y3
A2VSSQ AA4
A2VDD AB4
A2VDD AC4
A2VSSN AA3
A2VSSN AB3
AE2 VDDDI
AF3 VSSDI
AC3 AVDDQ
AD4 AVSSQ
AE4 A1VDD
AF4 A1VDD
AD3 AVSSN
AE3 AVSSN
DAC_VDDI
DAC_AVDDQ
DAC1_AVDD
DAC2_AVDD
B2417 BLM18BD151SN1
B2419 BLM18BD151SN1
B2418 BLM18BD151SN1
B2416 BLM18BD151SN1
C2554 1 B
C2555 1 B
C2556 1 B
C2553 1 B
C2558 0.1 B
C2559 0.1 B
C2557 0.1 B
C2560 0.1 B
C2573 0.1 B
C2574 0.1 B
C2575 0.1 B
C2576 0.1 B
C2551 10 C
C2552 10 C
L2414 NLV25T 0.47uH
L2412 NLV25T 0.47uH
L2411 NLV25T 0.47uH
L2413 NLV25T 0.47uH
34
33
35
36
V[PR]_OUT
Y_OUT
U[PB]_OUT
CVBS_OUT
R2523 75 +-1%
C2564 47P CH
C2572 47P CH
R2527 75 +-1%
R2521 75 +-1%
C2562 47P CH
C2570 47P CH
R2525 75 +-1%
R2520 75 +-1%
C2561 47P CH
C2569 47P CH
R2524 75 +-1%
R2522 75 +-1%
C2563 47P CH
C2571 47P CH
R2526 75 +-1%
X_TUNER_SDA
X_TUNER_SCL
R2515 4.7K
R2508 4.7K
R2441 100
R2440 100
TUNER_SCL
TUNER_SDA
TWIRE_TXDC
TWIRE_RXDC
R2512 4.7K
R2509 4.7K
LEVEL_SHIFT Q2403 KTK5132E
LEVEL_SHIFT Q2406 KTK5132E
RX_[X240]
TX_[X240]
FROM/TO POWER2
DTV_ON-H
UNREG+5V
UNREG+4V_M
UNREG+4V
AT+5V
+5V
+3.3V
+1.8V
+2.6V
VDDC_1.8V
DAC_2.5V
D_GND
ATSC/CLEAR CABLE ASIC
IC2401 (14/14 USB/SERIAL) X240H
USBA_P AH23 USBPA
USBA_N AG22 USBNA
USBB_P AK24 USBPB
USBB_N AJ23 USBNB
R2537 100K
AK23 USB_OVRCUR
AG19 IRRXDA
AK20 IRTXDA
AH19 IRBIDB
A13 CAPT1
D14 COMP1
RDA AJ21
TDA AH21
CTSAb AK22
RTSAb AG21
RDB AJ22
TDB AH22
RDC C13
TDC B13
TWIRE_RXDB
TWIRE_TXDB
TWIRE_RXDC
TWIRE_TXDC
R2538 4.7
R2539 4.7
R2540 4.7
R2541 4.7
USB_P_A
USB_N_A
USB_P_B
USB_N_B
+3.3V
R2535 15K
R2536 15K
NC

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

◁◁ PLAYBACK VIDEO SIGNAL
⬅ DIGITAL AUDIO SIGNAL

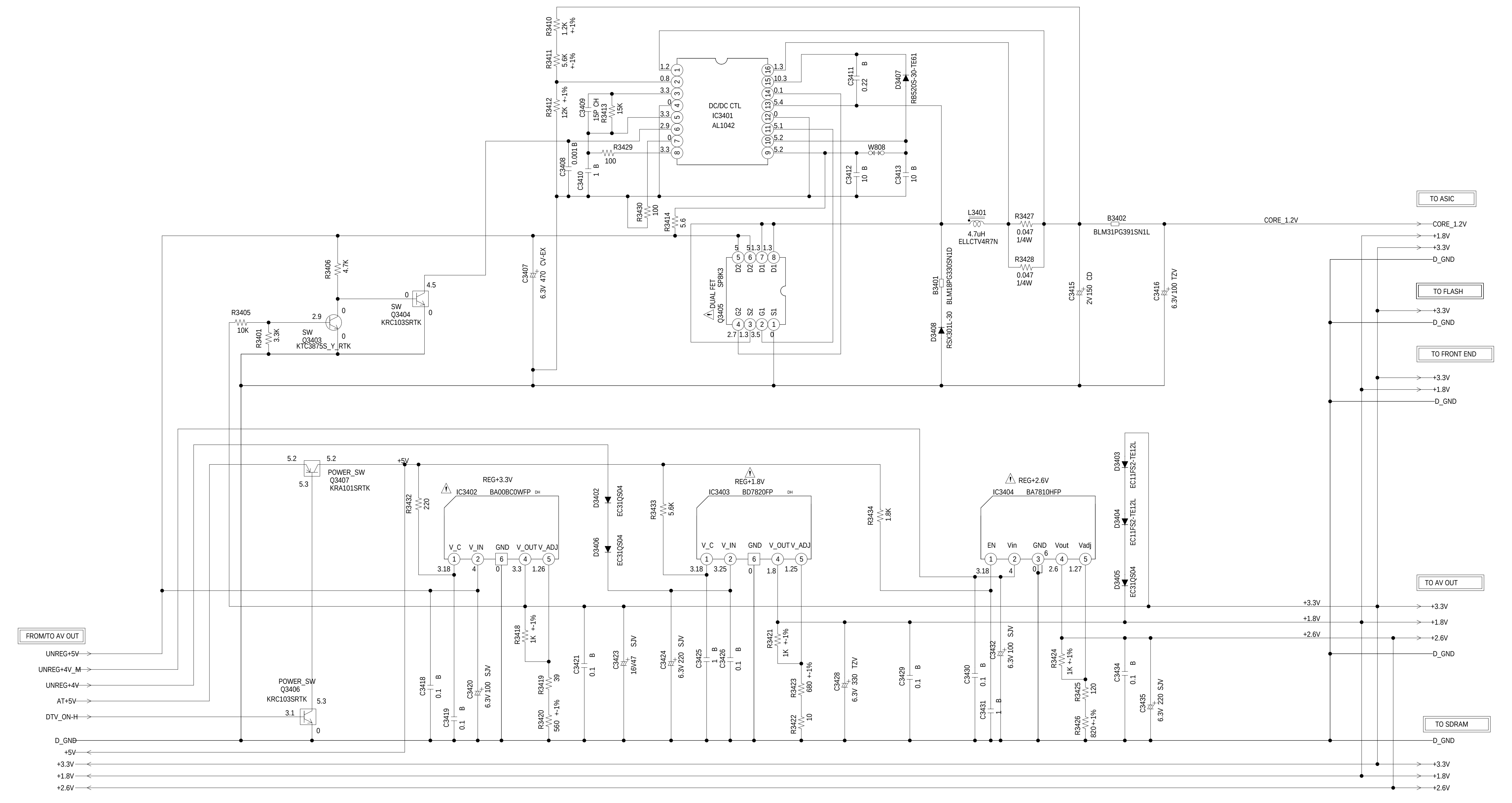
◁◁ COLOR SIGNAL
◀◀ LUMINANCE SIGNAL
◀ COMPONENT SIGNAL(V)
◀ COMPONENT SIGNAL(U)

◁◁ PLAYBACK VIDEO SIGNAL
◁◁ COLOR SIGNAL
◀◀ LUMINANCE SIGNAL
◀ COMPONENT SIGNAL(V)
◀ COMPONENT SIGNAL(U)

PCBDH0
CEF169

# POWER2 SCHEMATIC DIAGRAM

## (DIGITAL PCB)



R3410 1.2K +-1%
R3411 5.6K +-1%
R3412 12K +-1%
C3409 15P CH
R3413 15K
C3408 0.001 B
C3410 1 B
R3429 100
R3430 100
R3414 5.6
DC/DC CTL
IC3401
AL1042
C3411 0.22 B
D3407 RB520S-30-TE61
W808
C3412 10 B
C3413 10 B
L3401 4.7uH ELLCTV4R7N
R3427 0.047 1/4W
R3428 0.047 1/4W
B3402 BLM31PG391SN1L
CORE_1.2V
B3401 BLM18PG330SN1D
D3408 RSX301L-30
C3415 2V150 CD
C3416 6.3V 100 TZV
C3407 6.3V 470 CV-EX
DUAL FET
Q3405 SP8K3
R3406 4.7K
R3405 10K
R3401 3.3K
SW Q3403 KTC3875S_Y_RTK
SW Q3404 KRC103SRTK
TO ASIC
CORE_1.2V
+1.8V
+3.3V
D_GND
TO FLASH
+3.3V
D_GND
TO FRONT END
+3.3V
+1.8V
D_GND
POWER_SW Q3407 KRA101SRTK
+5V
R3432 220
REG+3.3V
IC3402 BA00BC0WFP
V_C V_IN GND V_OUT V_ADJ
D3402 EC31QS04
D3406 EC31QS04
R3433 5.6K
REG+1.8V
IC3403 BD7820FP
R3434 1.8K
REG+2.6V
IC3404 BA7810HFP
EN Vin GND Vout Vadj
D3403 EC11FS2-TE12L
D3404 EC11FS2-TE12L
D3405 EC31QS04
TO AV OUT
+3.3V
+1.8V
+2.6V
D_GND
FROM/TO AV OUT
UNREG+5V
UNREG+4V_M
UNREG+4V
AT+5V
DTV_ON-H
D_GND
+5V
+3.3V
+1.8V
+2.6V
POWER_SW Q3406 KRC103SRTK
C3418 0.1 B
C3419 0.1 B
C3420 6.3V 100 SJV
R3418 1K +-1%
R3419 39
R3420 560 +-1%
C3421 0.1 B
C3423 16V47 SJV
C3424 6.3V 220 SJV
C3425 1 B
C3426 0.1 B
R3421 1K +-1%
R3423 680 +-1%
R3422 10
C3428 6.3V 330 TZV
C3429 0.1 B
C3430 0.1 B
C3431 1 B
C3432 6.3V 100 SJV
R3424 1K +-1%
R3425 120
R3426 820+-1%
C3434 0.1 B
C3435 6.3V 220 SJV
TO SDRAM

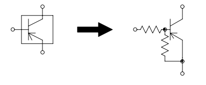
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

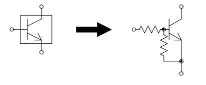
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR

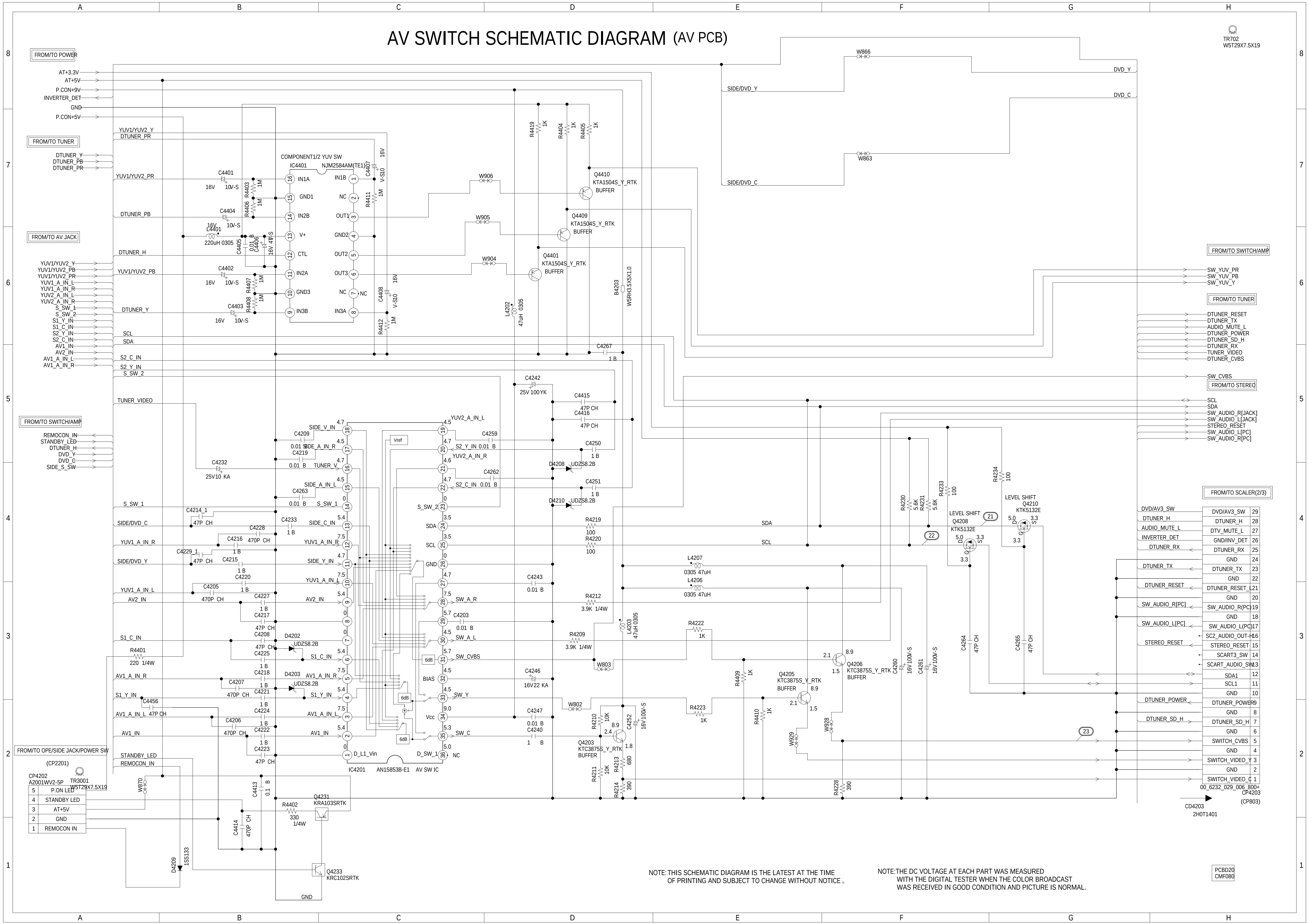


CAUTION: DIGITAL TRANSISTOR



PCBDH0
CEF169

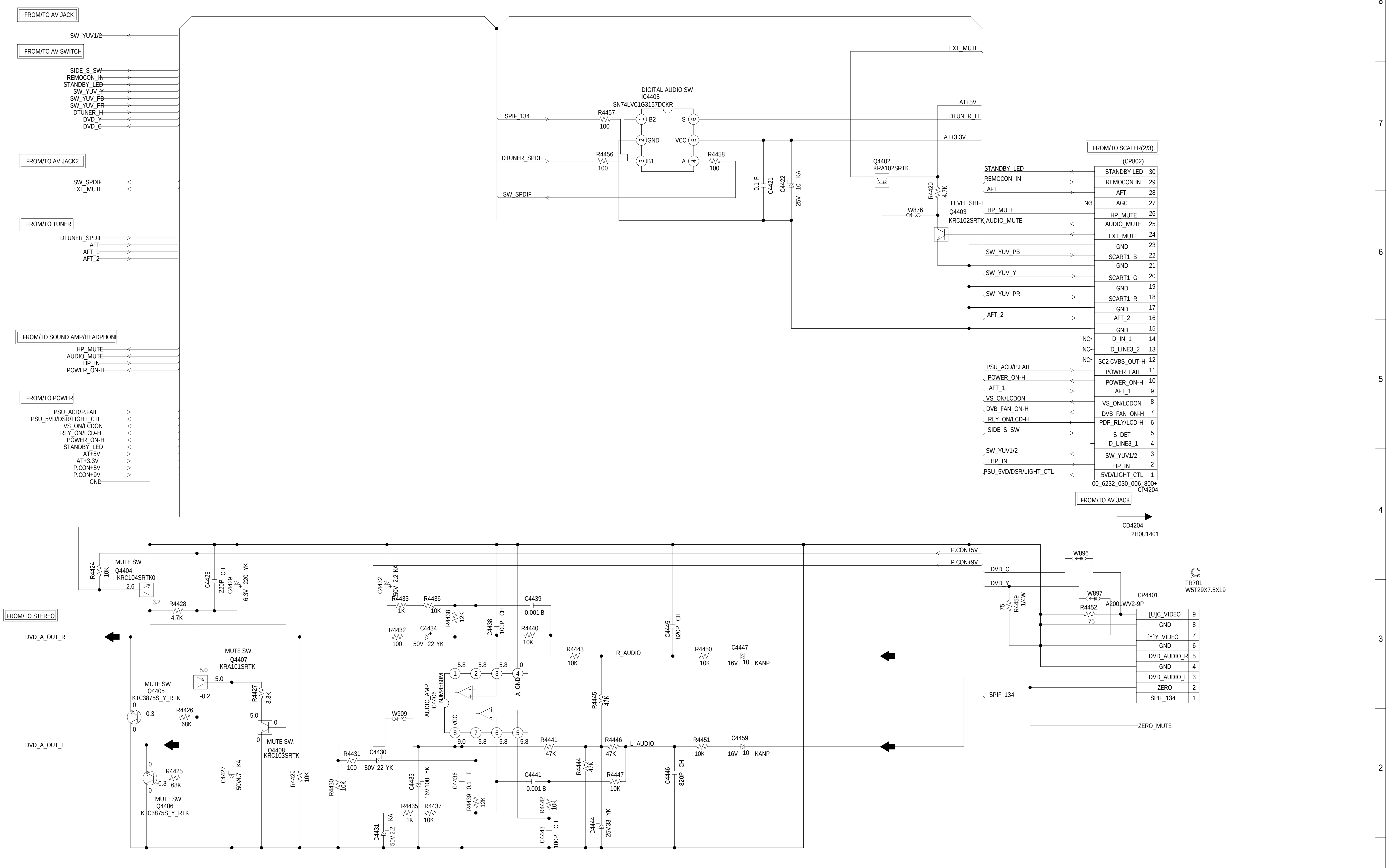
# AV SWITCH SCHEMATIC DIAGRAM (AV PCB)


A B C D E F G H
8 7 6 5 4 3 2 1
FROM/TO POWER
AT+3.3V
AT+5V
P.CON+9V
INVERTER_DET
GND
P.CON+5V
FROM/TO TUNER
DTUNER_Y
DTUNER_PB
DTUNER_PR
FROM/TO AV JACK
YUV1/YUV2_Y
YUV1/YUV2_PB
YUV1/YUV2_PR
YUV1_A_IN_L
YUV1_A_IN_R
YUV2_A_IN_L
YUV2_A_IN_R
S_SW_1
S_SW_2
S1_Y_IN
S1_C_IN
S2_Y_IN
S2_C_IN
AV1_IN
AV2_IN
AV1_A_IN_L
AV1_A_IN_R
FROM/TO SWITCH/AMP
REMOCON_IN
STANDBY_LED
DTUNER_H
DVD_Y
DVD_C
SIDE_S_SW
COMPONENT1/2 YUV SW
IC4401
NJM2584AM(TE1)
IN1A
GND1
IN2B
V+
CTL
IN2A
GND3
IN3B
IN1B
NC
OUT1
GND2
OUT2
OUT3
IN3A
C4401
C4402
C4403
C4404
C4405
C4406
C4407
C4408
R4403
R4406
R4407
R4408
R4411
R4412
L4401
220uH 0305
W906
W905
W904
Q4410
KTA1504S_Y_RTK
BUFFER
Q4409
KTA1504S_Y_RTK
BUFFER
Q4401
KTA1504S_Y_RTK
BUFFER
R4419 1K
R4404 1K
R4405 1K
L4202 47uH 0305
B4203 W5RH3.5X5X1.0
C4267 1 B
SIDE/DVD_Y
SIDE/DVD_C
W866
W863
DVD_Y
DVD_C
TR702
W5T29X7.5X19
FROM/TO SWITCH/AMP
SW_YUV_PR
SW_YUV_PB
SW_YUV_Y
FROM/TO TUNER
DTUNER_RESET
DTUNER_TX
AUDIO_MUTE_L
DTUNER_POWER
DTUNER_SD_H
DTUNER_RX
TUNER_VIDEO
DTUNER_CVBS
SW_CVBS
FROM/TO STEREO
SCL
SDA
SW_AUDIO_R[JACK]
SW_AUDIO_L[JACK]
STEREO_RESET
SW_AUDIO_L[PC]
SW_AUDIO_R[PC]
TUNER_VIDEO
SCL
SDA
S2_C_IN
S2_Y_IN
S_SW_2
S_SW_1
SIDE/DVD_C
YUV1_A_IN_R
SIDE/DVD_Y
YUV1_A_IN_L
AV2_IN
S1_C_IN
AV1_A_IN_R
S1_Y_IN
AV1_A_IN_L
AV1_IN
STANDBY_LED
REMOCON_IN
SIDE_V_IN
SIDE_A_IN_R
TUNER_V
SIDE_A_IN_L
SIDE_C_IN
SIDE_Y_IN
YUV1_A_IN_L
YUV2_A_IN_L
S2_Y_IN
YUV2_A_IN_R
S2_C_IN
SW_A_R
SW_A_L
SW_CVBS
BIAS
SW_Y
Vcc
SW_C
D_L1_Vin
D_SW_1
NC
Vref
6dB
IC4201
AN15853B-E1
AV SW IC
C4209 0.01 B
C4219 0.01 B
C4232 25V10 KA
C4263 0.01 B
C4214_1 47P CH
C4233 1 B
C4228 470P CH
C4216 1 B
C4229_1 47P CH
C4215 1 B
C4220 1 B
C4205 470P CH
C4227 1 B
C4217 47P CH
C4208 47P CH
C4225 1 B
C4218 1 B
C4207 470P CH
C4221 1 B
C4224 1 B
C4206 470P CH
C4222 1 B
C4223 47P CH
C4456 47P CH
D4202 UDZS8.2B
D4203 UDZS8.2B
R4401 220 1/4W
C4242 25V 100YK
C4415 47P CH
C4416 47P CH
C4259 0.01 B
C4250 1 B
D4208 UDZS8.2B
C4262 0.01 B
C4251 1 B
D4210 UDZS8.2B
R4219 100
R4220 100
C4243 0.01 B
R4212 3.9K 1/4W
C4203 0.01 B
R4209 3.9K 1/4W
C4246 16V22 KA
C4247 0.01 B
C4240 1 B
W803
W802
L4207 0305 47uH
L4206 0305 47uH
L4203 47uH 0305
R4222 1K
R4223 1K
R4409 1K
R4410 1K
Q4205
KTC3875S_Y_RTK
BUFFER
Q4206
KTC3875S_Y_RTK
BUFFER
Q4203
KTC3875S_Y_RTK
BUFFER
R4210 10K
R4211 10K
R4213 680
R4214 390
C4252 16V100-S
W928
W929
R4228 390
C4260 16V100-S
C4261 16V100-S
R4230 5.6K
R4231 5.6K
R4233 100
R4234 100
LEVEL SHIFT
Q4208
KTK5132E
LEVEL SHIFT
Q4210
KTK5132E
C4264 47P CH
C4265 47P CH
21
22
23
FROM/TO SCALER(2/3)
DVD/AV3_SW
DTUNER_H
AUDIO_MUTE_L
INVERTER_DET
DTUNER_RX
DTUNER_TX
DTUNER_RESET
SW_AUDIO_R[PC]
SW_AUDIO_L[PC]
STEREO_RESET
DTUNER_POWER
DTUNER_SD_H
DVD/AV3_SW 29
DTUNER_H 28
DTV_MUTE_L 27
GND/INV_DET 26
DTUNER_RX 25
GND 24
DTUNER_TX 23
GND 22
DTUNER_RESET_L 21
GND 20
SW_AUDIO_R(PC) 19
GND 18
SW_AUDIO_L(PC) 17
SC2_AUDIO_OUT+ 16
STEREO_RESET 15
SCART3_SW 14
SCART_AUDIO_SW 13
SDA1 12
SCL1 11
GND 10
DTUNER_POWER 9
GND 8
DTUNER_SD_H 7
GND 6
SWITCH_CVBS 5
GND 4
SWITCH_VIDEO_Y 3
GND 2
SWITCH_VIDEO_C 1
00_6232_029_006_800+
CP4203
(CP803)
CD4203
2H0T1401
FROM/TO OPE/SIDE JACK/POWER SW
(CP2201)
CP4202
A2001WV2-5P
TR3001
W5T29X7.5X19
5 P.ON LED
4 STANDBY LED
3 AT+5V
2 GND
1 REMOCON IN
W870
D4209 1SS133
C4413 0.1 B
C4414 470P CH
R4402 330 1/4W
Q4231 KRA103SRTK
Q4233 KRC102SRTK
GND
PCBD20
CMF080

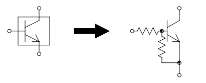
NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

# SWITCH/AMP SCHEMATIC DIAGRAM (AV PCB)


FROM/TO AV JACK
SW_YUV1/2
FROM/TO AV SWITCH
SIDE_S_SW
REMOCON_IN
STANDBY_LED
SW_YUV_Y
SW_YUV_PB
SW_YUV_PR
DTUNER_H
DVD_Y
DVD_C
FROM/TO AV JACK2
SW_SPDIF
EXT_MUTE
FROM/TO TUNER
DTUNER_SPDIF
AFT
AFT_1
AFT_2
FROM/TO SOUND AMP/HEADPHONE
HP_MUTE
AUDIO_MUTE
HP_IN
POWER_ON-H
FROM/TO POWER
PSU_ACD/P.FAIL
PSU_5VD/DSR/LIGHT_CTL
VS_ON/LCDON
RLY_ON/LCD-H
POWER_ON-H
STANDBY_LED
AT+5V
AT+3.3V
P.CON+5V
P.CON+9V
GND
DIGITAL AUDIO SW
IC4405
SN74LVC1G3157DCKR
SPIF_134
R4457 100
B2
GND
B1
S
VCC
A
DTUNER_SPDIF
R4456 100
R4458 100
SW_SPDIF
0.1 F C4421
C4422 25V 10 KA
EXT_MUTE
AT+5V
DTUNER_H
AT+3.3V
Q4402 KRA102SRTK
R4420 4.7K
LEVEL SHIFT
Q4403 KRC102SRTK
W876
FROM/TO SCALER(2/3)
(CP802)
STANDBY LED 30
REMOCON IN 29
AFT 28
NC AGC 27
HP_MUTE 26
AUDIO_MUTE 25
EXT_MUTE 24
GND 23
SCART1_B 22
GND 21
SCART1_G 20
GND 19
SCART1_R 18
GND 17
AFT_2 16
GND 15
NC D_IN_1 14
NC D_LINE3_2 13
NC SC2 CVBS_OUT-H 12
POWER_FAIL 11
POWER_ON-H 10
AFT_1 9
VS_ON/LCDON 8
DVB_FAN_ON-H 7
PDP_RLY/LCD-H 6
S_DET 5
D_LINE3_1 4
SW_YUV1/2 3
HP_IN 2
5VD/LIGHT_CTL 1
00_6232_030_006_800+
CP4204
FROM/TO AV JACK
CD4204
2H0U1401
STANDBY_LED
REMOCON_IN
AFT
HP_MUTE
AUDIO_MUTE
SW_YUV_PB
SW_YUV_Y
SW_YUV_PR
AFT_2
PSU_ACD/P.FAIL
POWER_ON-H
AFT_1
VS_ON/LCDON
DVB_FAN_ON-H
RLY_ON/LCD-H
SIDE_S_SW
SW_YUV1/2
HP_IN
PSU_5VD/DSR/LIGHT_CTL
P.CON+5V
P.CON+9V
W896
DVD_C
DVD_Y
W897
TR701
W5T29X7.5X19
CP4401
A2001WV2-9P
R4452 75
75 R4459 1/4W
[U]C_VIDEO 9
GND 8
[Y]Y_VIDEO 7
GND 6
DVD_AUDIO_R 5
GND 4
DVD_AUDIO_L 3
ZERO 2
SPIF_134 1
SPIF_134
ZERO_MUTE
R4424 10K
MUTE SW
Q4404
KRC104SRTK0
2.6
3.2
R4428 4.7K
C4428 220P CH
C4429 220 YK 6.3V
FROM/TO STEREO
DVD_A_OUT_R
DVD_A_OUT_L
MUTE SW.
Q4407
KRA101SRTK
5.0
5.0
-0.2
R4427 3.3K
MUTE SW
Q4405
KTC3875S_Y_RTK
0
-0.3
0
R4426 68K
5.0
0
0
MUTE SW.
Q4408
KRC103SRTK
R4425 68K
-0.3
0
MUTE SW
Q4406
KTC3875S_Y_RTK
C4427 50V4.7 KA
R4429 10K
R4430 10K
C4432 50V 2.2 KA
R4433 1K
R4436 10K
R4438 12K
C4439 0.001 B
C4438 100P CH
R4440 10K
R4432 100
C4434 50V 22 YK
R4443 10K
R_AUDIO
C4445 820P CH
R4450 10K
C4447 16V 10 KANP
5.8
5.8
5.8
0
AUDIO_AMP
IC4406
NJM4580M
A_GND
VCC
W909
9.0
5.8
5.8
R4445 47K
R4441 47K
R4446 47K
L_AUDIO
R4451 10K
C4459 16V 10 KANP
C4446 820P CH
R4431 100
C4430 50V 22 YK
C4433 16V100 YK
C4436 0.1 F
R4439 12K
C4441 0.001 B
R4444 47K
R4447 10K
R4442 10K
R4435 1K
R4437 10K
C4431 50V 2.2 KA
C4443 100P CH
C4444 25V33 YK

CAUTION: DIGITAL TRANSISTOR



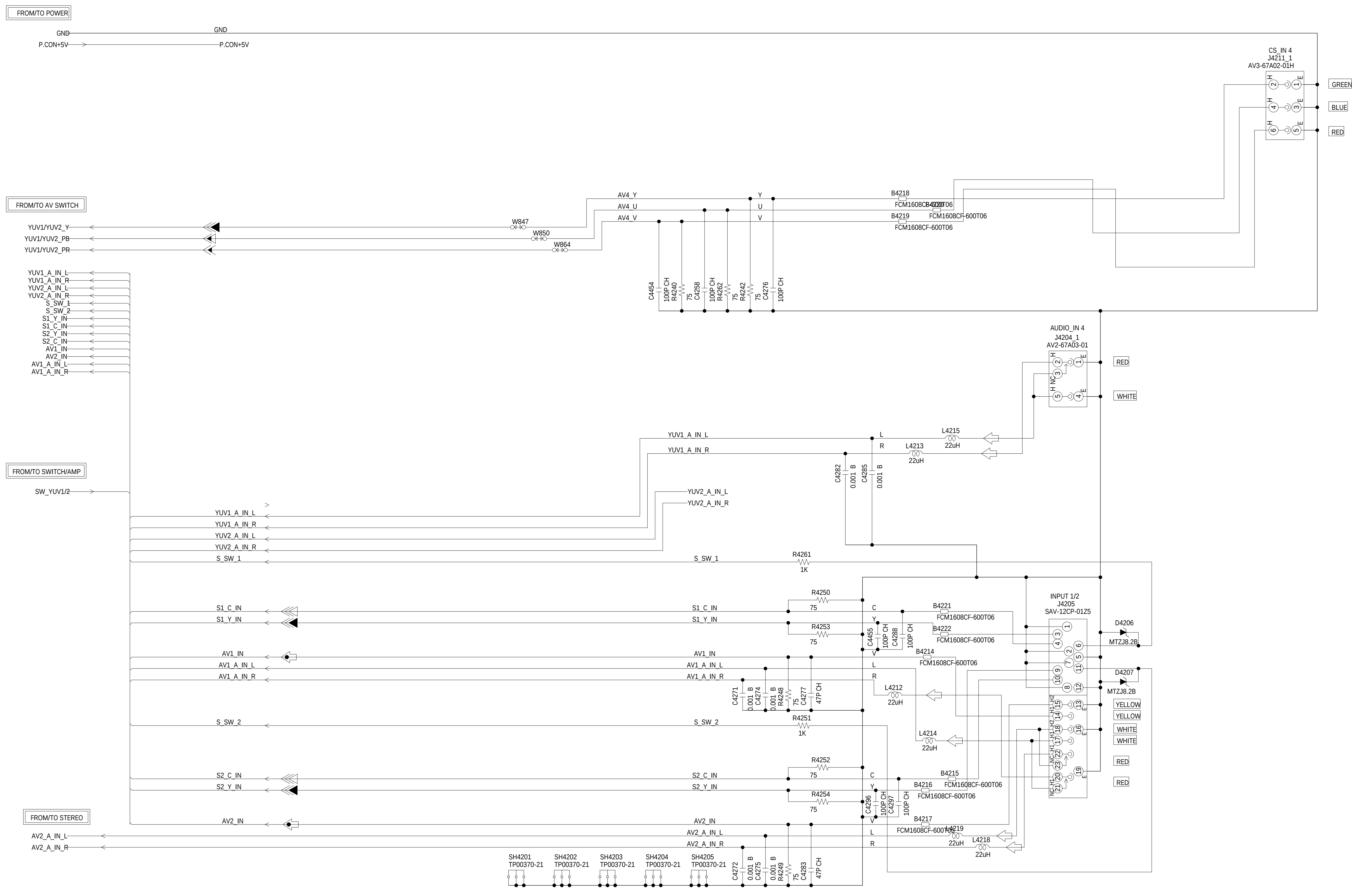
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

PCBD20
CMF080

# AV JACK SCHEMATIC DIAGRAM



FROM/TO POWER
GND
P.CON+5V
CS_IN 4
J4211_1
AV3-67A02-01H
GREEN
BLUE
RED
FROM/TO AV SWITCH
YUV1/YUV2_Y
YUV1/YUV2_PB
YUV1/YUV2_PR
W847
W850
W864
AV4_Y
AV4_U
AV4_V
B4218
FCM1608CF-600T06
B4220
B4219
C4454
100P CH
R4240
75
C4258
R4262
R4242
C4276
YUV1_A_IN_L
YUV1_A_IN_R
YUV2_A_IN_L
YUV2_A_IN_R
S_SW_1
S_SW_2
S1_Y_IN
S1_C_IN
S2_Y_IN
S2_C_IN
AV1_IN
AV2_IN
AV1_A_IN_L
AV1_A_IN_R
AUDIO_IN 4
J4204_1
AV2-67A03-01
WHITE
L4215
22uH
L4213
C4282
0.001 B
C4285
FROM/TO SWITCH/AMP
SW_YUV1/2
R4261
1K
R4250
R4253
B4221
B4222
C4455
C4288
B4214
INPUT 1/2
J4205
SAV-12CP-01Z5
D4206
MTZJ8.2B
D4207
L4212
C4271
C4274
R4248
C4277
47P CH
YELLOW
R4251
L4214
R4252
R4254
B4215
B4216
C4296
C4297
B4217
L4219
L4218
FROM/TO STEREO
AV2_A_IN_L
AV2_A_IN_R
SH4201
SH4202
SH4203
SH4204
SH4205
TP00370-21
C4272
C4275
R4249
C4283
PCBD20
CMF080

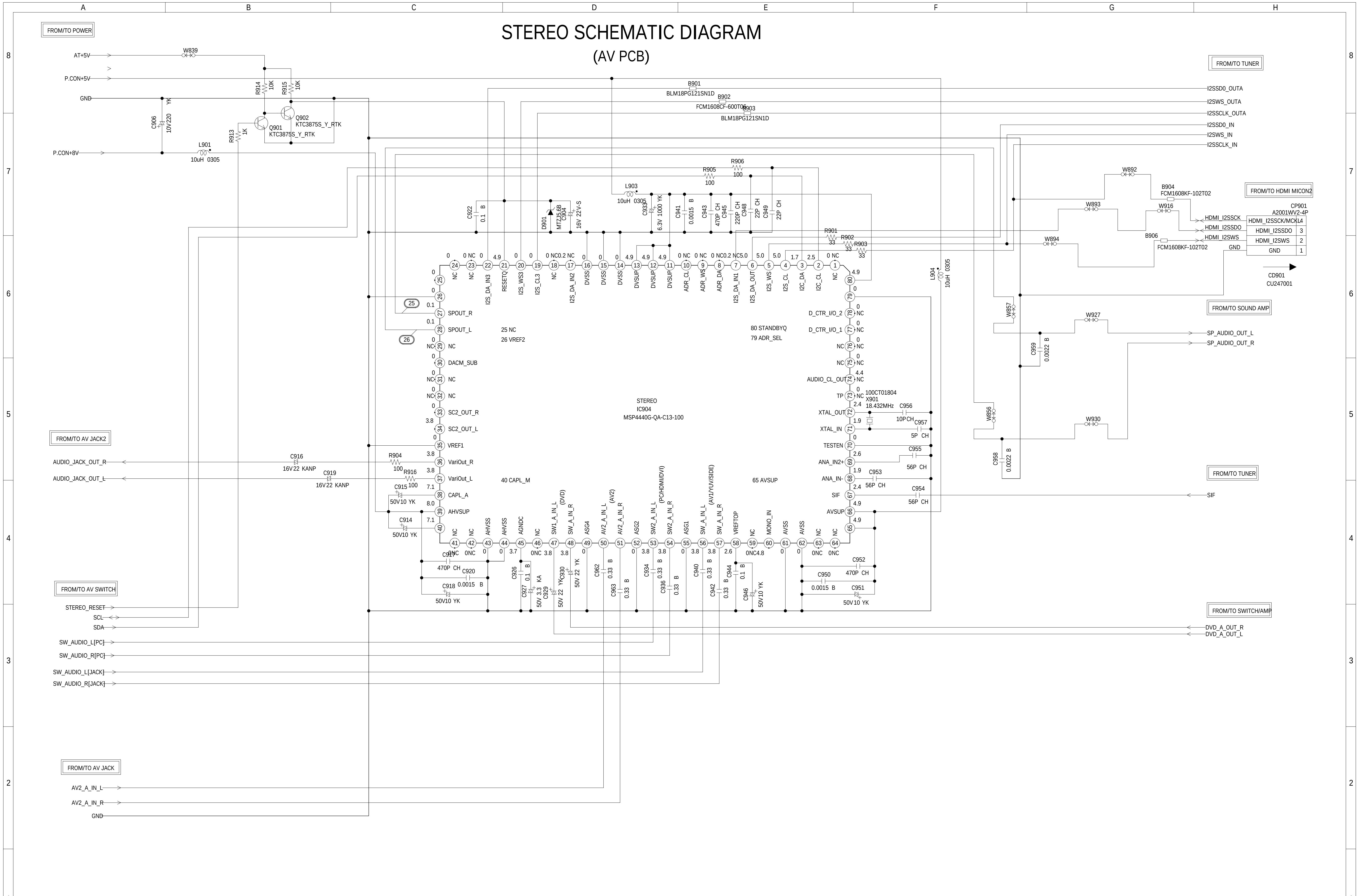
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

- ◀ COMPONENT SIGNAL(V)
- ◀ COMPONENT SIGNAL(U)
- ◁ COLOR SIGNAL
- ◀ LUMINANCE SIGNAL
- ◆ VIDEO SIGNAL
- ⇦ AUDIO SIGNAL

# STEREO SCHEMATIC DIAGRAM

## (AV PCB)



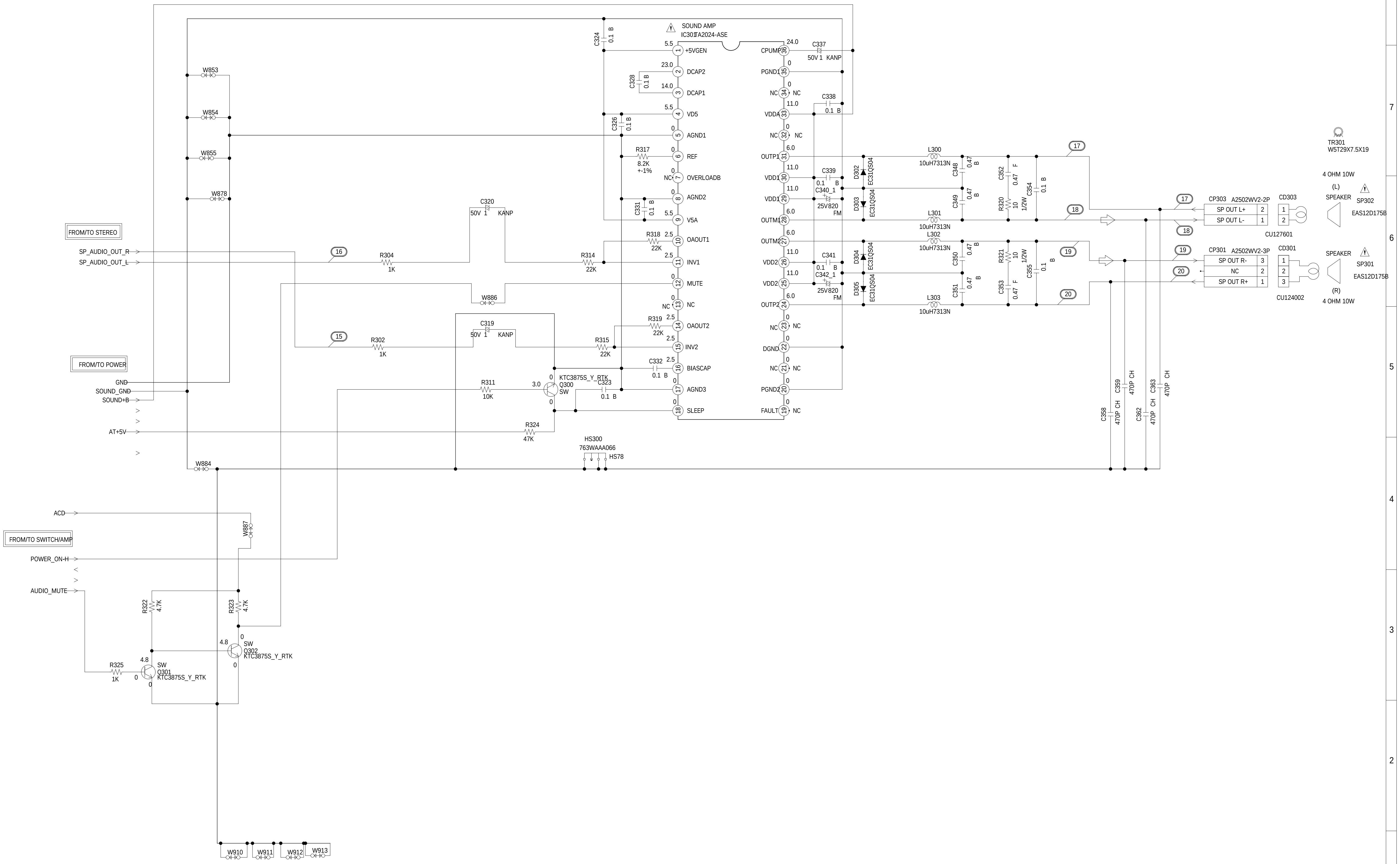
FROM/TO POWER
AT+5V
P.CON+5V
GND
P.CON+8V
W839
R914 10K
R915 10K
C906 10V220 YK
R913 1K
Q901 KTC3875S_Y_RTK
Q902 KTC3875S_Y_RTK
L901 10uH 0305
FROM/TO TUNER
I2SSD0_OUTA
I2SWS_OUTA
I2SSCLK_OUTA
I2SSD0_IN
I2SWS_IN
I2SSCLK_IN
B901 BLM18PG121SN1D
B902 FCM1608CF-600T06
B903 BLM18PG121SN1D
R905 100
R906 100
L903 10uH 0305
C922 0.1 B
D901 MTZJ5.6B
C904 16V 22 V-S
C933 6.3V 1000 YK
C941 0.0015 B
C943 470P CH
C945 220P CH
C948 22P CH
C949 22P CH
R901 33
R902 33
R903 33
W892
B904 FCM1608KF-102T02
FROM/TO HDMI MICON2
CP901 A2001WV2-4P
W893
W916
HDMI_I2SSCK
HDMI_I2SSDO
HDMI_I2SWS
GND
HDMI_I2SSCK/MCKL 4
HDMI_I2SSDO 3
HDMI_I2SWS 2
GND 1
W894
B906 FCM1608KF-102T02
CD901 CU247001
L904 10uH 0305
W857
FROM/TO SOUND AMP
W927
SP_AUDIO_OUT_L
SP_AUDIO_OUT_R
C959 0.0022 B
W856
W930
C958 0.0022 B
FROM/TO TUNER
SIF
STEREO IC904 MSP4440G-QA-C13-100
25 NC
26 VREF2
40 CAPL_M
65 AVSUP
80 STANDBYQ
79 ADR_SEL
NC DVSUP DVSS I2S_DA_IN3 RESETQ I2S_WS3 I2S_CL3 I2S_DA_IN2 ADR_CL ADR_WS ADR_DA I2S_DA_IN1 I2S_DA_OUT I2S_WS I2S_CL I2C_DA I2C_CL
SPOUT_R SPOUT_L DACM_SUB SC2_OUT_R SC2_OUT_L VREF1 VariOut_R VariOut_L CAPL_A AHVSUP
D_CTR_I/O_2 D_CTR_I/O_1 AUDIO_CL_OUT TP XTAL_OUT XTAL_IN TESTEN ANA_IN2+ ANA_IN- SIF AVSUP
AHVSS AGNDC SW1_A_IN_L SW_A_IN_R ASG4 AV2_A_IN_L AV2_A_IN_R ASG2 SW2_A_IN_L SW2_A_IN_R ASG1 SW_A_IN_L SW_A_IN_R VREFTOP MONO_IN AVSS
(DVD) (AV2) (PC/HDMI/DVI) (AV1/YUV/SIDE)
X901 100CT01804 18.432MHz
C956 10P CH
C957 5P CH
C955 56P CH
C953 56P CH
C954 56P CH
FROM/TO AV JACK2
AUDIO_JACK_OUT_R
AUDIO_JACK_OUT_L
C916 16V 22 KANP
C919 16V 22 KANP
R904 100
R916 100
C915 50V10 YK
C914 50V10 YK
C917 470P CH
C920 0.0015 B
C918 50V10 YK
C926 0.1 B
C927 50V 3.3 KA
C929 50V 22 YK
C930 50V 22 YK
C962 0.33 B
C963 0.33 B
C934 0.33 B
C936 0.33 B
C940 0.33 B
C942 0.33 B
C944 0.1 B
C946 50V10 YK
C952 470P CH
C950 0.0015 B
C951 50V 10 YK
FROM/TO AV SWITCH
STEREO_RESET
SCL
SDA
SW_AUDIO_L[PC]
SW_AUDIO_R[PC]
SW_AUDIO_L[JACK]
SW_AUDIO_R[JACK]
FROM/TO SWITCH/AMP
DVD_A_OUT_R
DVD_A_OUT_L
FROM/TO AV JACK
AV2_A_IN_L
AV2_A_IN_R
GND
PCBD20
CMF080

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

# SOUND AMP/HEADPHONE AMP SCHEMATIC DIAGRAM

## (AV PCB)



SOUND AMP
IC301 TA2024-ASE
+5VGEN
DCAP2
DCAP1
VD5
AGND1
REF
OVERLOADB
AGND2
V5A
OAOUT1
INV1
MUTE
NC
OAOUT2
INV2
BIASCAP
AGND3
SLEEP
CPUMP
PGND1
VDDA
OUTP1
VDD1
OUTM1
OUTM2
VDD2
OUTP2
DGND
PGND2
FAULT
C324 0.1 B
C328 0.1 B
C326 0.1 B
C331 0.1 B
C337 50V 1 KANP
C338 0.1 B
C339 0.1 B
C340_1 25V820 FM
C341 0.1 B
C342_1 25V820 FM
C320 50V 1 KANP
C319 50V 1 KANP
C332 0.1 B
C323 0.1 B
R317 8.2K +-1%
R318 22K
R319 22K
R314 22K
R315 22K
R304 1K
R302 1K
R311 10K
R324 47K
R322 4.7K
R323 4.7K
R325 1K
Q300 KTC3875S_Y_RTK SW
Q301 KTC3875S_Y_RTK SW
Q302 KTC3875S_Y_RTK SW
D302 EC31QS04
D303 EC31QS04
D304 EC31QS04
D305 EC31QS04
L300 10uH7313N
L301 10uH7313N
L302 10uH7313N
L303 10uH7313N
C348 0.47 B
C349 0.47 B
C350 0.47 B
C351 0.47 B
C352 0.47 F
C353 0.47 F
C354 0.1 B
C355 0.1 B
R320 10 1/2W
R321 10 1/2W
C358 470P CH
C359 470P CH
C362 470P CH
C363 470P CH
HS300 763WAAA066 HS78
W853
W854
W855
W878
W886
W884
W887
W910
W911
W912
W913
FROM/TO STEREO
SP_AUDIO_OUT_R
SP_AUDIO_OUT_L
FROM/TO POWER
GND
SOUND_GND
SOUND+B
AT+5V
FROM/TO SWITCH/AMP
ACD
POWER_ON-H
AUDIO_MUTE
CP303 A2502WV2-2P
SP OUT L+
SP OUT L-
CD303
CU127601
CP301 A2502WV2-3P
SP OUT R-
NC
SP OUT R+
CD301
CU124002
TR301 W5T29X7.5X19
4 OHM 10W
(L)
SPEAKER
SP302
EAS12D175B
SPEAKER
SP301
EAS12D175B
(R)
4 OHM 10W
15
16
17
18
19
20
PCBD20
CMF080

CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

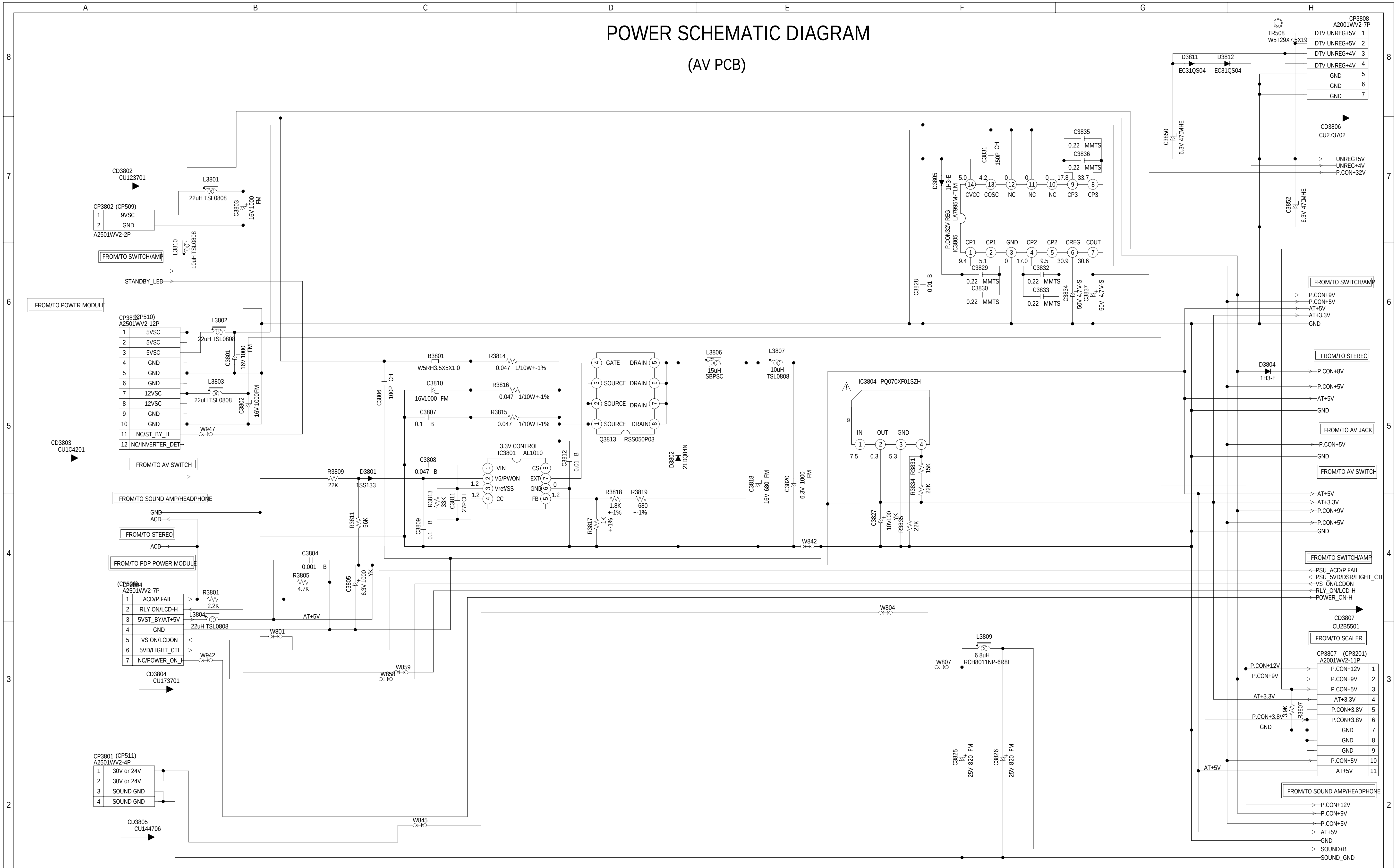
ATTENTION:LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

# POWER SCHEMATIC DIAGRAM

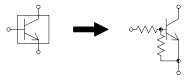
## (AV PCB)


A B C D E F G H
1 2 3 4 5 6 7 8
CP3808 A2001WV2-7P
TR508 W5T29X7.5X19
DTV UNREG+5V 1
DTV UNREG+5V 2
DTV UNREG+4V 3
DTV UNREG+4V 4
GND 5
GND 6
GND 7
D3811 EC31QS04
D3812 EC31QS04
C3850 6.3V 470MHE
C3852 6.3V 470MHE
CD3806 CU273702
UNREG+5V
UNREG+4V
P.CON+32V
CD3802 CU123701
CP3802 (CP509) A2501WV2-2P
1 9VSC
2 GND
L3801 22uH TSL0808
C3803 16V 1000 FM
L3810 10uH TSL0808
FROM/TO SWITCH/AMP
STANDBY_LED
FROM/TO POWER MODULE
CP3803 (CP510) A2501WV2-12P
1 5VSC
2 5VSC
3 5VSC
4 GND
5 GND
6 GND
7 12VSC
8 12VSC
9 GND
10 GND
11 NC/ST_BY_H
12 NC/INVERTER_DET
L3802 22uH TSL0808
C3801 16V 1000 FM
L3803 22uH TSL0808
C3802 16V 1000FM
W947
CD3803 CU1C4201
FROM/TO AV SWITCH
FROM/TO SOUND AMP/HEADPHONE
GND
ACD
FROM/TO STEREO
ACD
FROM/TO PDP POWER MODULE
CP3804 (CP508) A2501WV2-7P
1 ACD/P.FAIL
2 RLY ON/LCD-H
3 5VST_BY/AT+5V
4 GND
5 VS ON/LCDON
6 5VD/LIGHT_CTL
7 NC/POWER_ON_H
R3801 2.2K
L3804 22uH TSL0808
AT+5V
W801
W942
CD3804 CU173701
W859
W858
C3804 0.001 B
R3805 4.7K
C3805 6.3V 1000 YK
R3809 22K
D3801 1SS133
R3811 56K
C3806 100P CH
B3801 W5RH3.5X5X1.0
R3814 0.047 1/10W+-1%
C3810 16V1000 FM
R3816 0.047 1/10W+-1%
C3807 0.1 B
R3815 0.047 1/10W+-1%
3.3V CONTROL IC3801 AL1010
C3808 0.047 B
VIN V5/PWON Vref/SS CC CS EXT GND FB
1.2 1.2 0 1.2
R3813 33K
C3811 27PCH
C3809 0.1 B
C3812 0.01 B
GATE SOURCE SOURCE SOURCE DRAIN DRAIN DRAIN DRAIN
Q3813 RSS050P03
L3806 15uH SBPSC
L3807 10uH TSL0808
D3802 21DQ04N
R3818 1.8K +-1%
R3819 680 +-1%
R3817 1K +-1%
C3818 16V 680 FM
C3820 6.3V 1000 FM
W842
IC3804 PQ070XF01SZH
IN OUT GND
7.5 0.3 5.3
R3831 15K
R3834 22K
C3827 10V100 YK
R3835 22K
D3805 1H3-E
P.CON32V REG IC3805 LA7995M-TLM
CVCC COSC NC NC NC CP3 CP3
5.0 4.2 0 0 0 17.8 33.7
CP1 CP1 GND CP2 CP2 CREG COUT
9.4 5.1 0 17.0 9.5 30.9 30.6
C3831 150P CH
C3835 0.22 MMTS
C3836 0.22 MMTS
C3829 0.22 MMTS
C3830 0.22 MMTS
C3832 0.22 MMTS
C3833 0.22 MMTS
C3834 50V 4.7V-S
C3837 50V 4.7V-S
C3828 0.01 B
FROM/TO SWITCH/AMP
P.CON+9V
P.CON+5V
AT+5V
AT+3.3V
GND
FROM/TO STEREO
D3804 1H3-E
P.CON+8V
P.CON+5V
AT+5V
GND
FROM/TO AV JACK
P.CON+5V
GND
FROM/TO AV SWITCH
AT+5V
AT+3.3V
P.CON+9V
P.CON+5V
GND
FROM/TO SWITCH/AMP
PSU_ACD/P.FAIL
PSU_5VD/DSR/LIGHT_CTL
VS_ON/LCDON
RLY_ON/LCD-H
POWER_ON-H
CD3807 CU2B5501
FROM/TO SCALER
CP3807 (CP3201) A2001WV2-11P
P.CON+12V 1
P.CON+9V 2
P.CON+5V 3
AT+3.3V 4
P.CON+3.8V 5
P.CON+3.8V 6
GND 7
GND 8
GND 9
P.CON+5V 10
AT+5V 11
R3807 3.9K
W804
W807
L3809 6.8uH RCH8011NP-6R8L
C3825 25V 820 FM
C3826 25V 820 FM
FROM/TO SOUND AMP/HEADPHONE
P.CON+12V
P.CON+9V
P.CON+5V
AT+5V
GND
SOUND+B
SOUND_GND
CP3801 (CP511) A2501WV2-4P
1 30V or 24V
2 30V or 24V
3 SOUND GND
4 SOUND GND
CD3805 CU144706
W845

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

CAUTION: DIGITAL TRANSISTOR



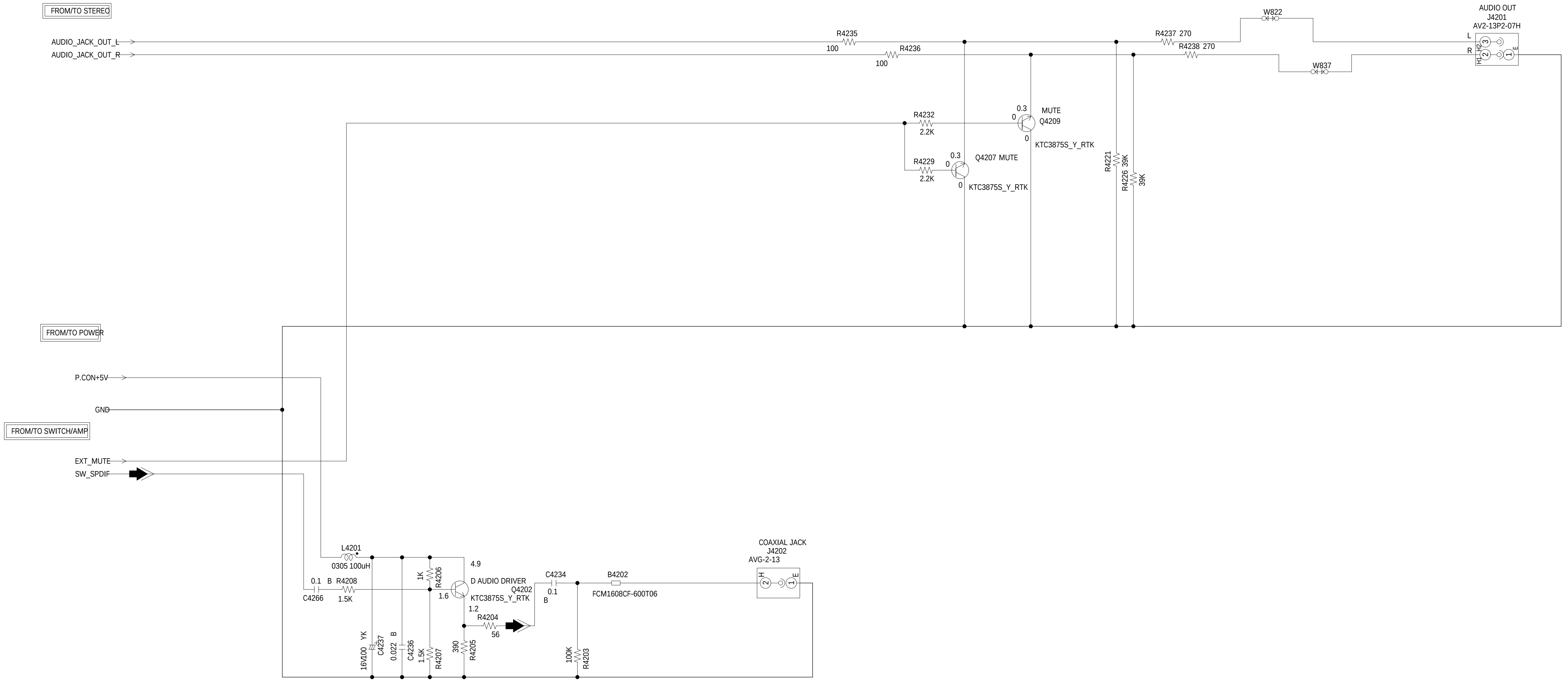
**CAUTION** SINCE THESE PARTS MARKED BY ⚠ ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY 。

**ATTENTION**:LES PIECES REPAREES PAR UN ⚠ ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES。

PCBD20
CMF080

# AV JACK2 SCHEMATIC DIAGRAM

## (AV PCB)


FROM/TO STEREO
AUDIO_JACK_OUT_L
AUDIO_JACK_OUT_R
R4235
100
R4236
100
R4237 270
R4238 270
W822
W837
AUDIO OUT
J4201
AV2-13P2-07H
L
R
H2
H1
E
3
2
1
R4232
2.2K
0.3
0
MUTE
Q4209
0
KTC3875S_Y_RTK
R4229
2.2K
0.3
0
Q4207 MUTE
0
KTC3875S_Y_RTK
R4221 39K
R4226 39K
FROM/TO POWER
P.CON+5V
GND
FROM/TO SWITCH/AMP
EXT_MUTE
SW_SPDIF
L4201
0305 100uH
0.1 B R4208
C4266
1.5K
YK
16V100
C4237
0.022 B
C4236
1K
R4206
1.5K
R4207
4.9
D AUDIO DRIVER
Q4202
KTC3875S_Y_RTK
1.6
1.2
R4204
56
390
R4205
C4234
0.1
B
100K
R4203
B4202
FCM1608CF-600T06
COAXIAL JACK
J4202
AVG-2-13
H
2
E
1

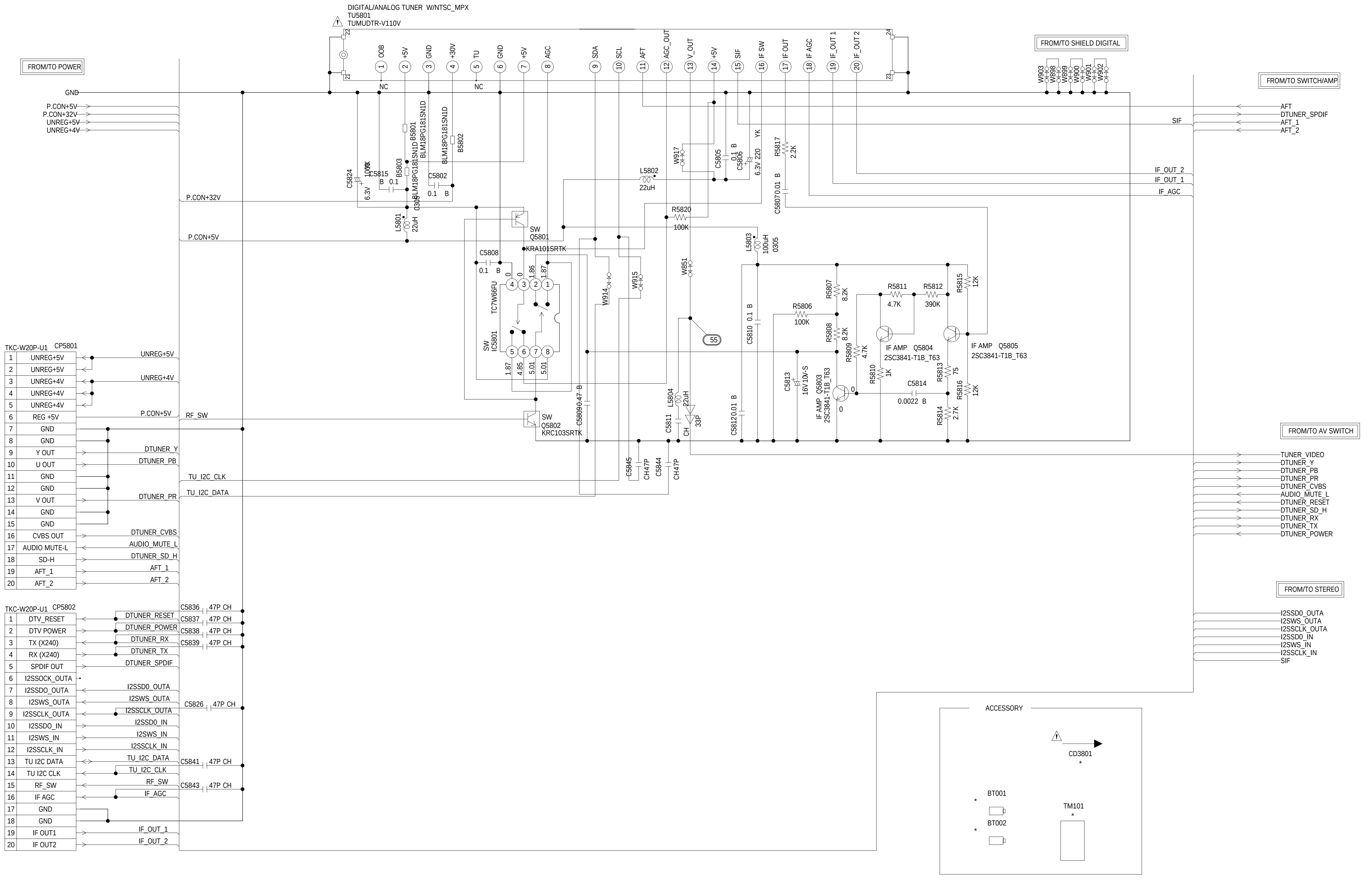
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBD20
CMF080

# TUNER SCHEMATIC DIAGRAM

# (AV PCB)


DIGITAL/ANALOG TUNER W/NTSC_MPX
TU5801
TUMUDTR-V110V
OOB
+5V
GND
+30V
TU
GND
+5V
AGC
SDA
SCL
AFT
AGC_OUT
V_OUT
+5V
SIF
IF SW
IF OUT
IF AGC
IF_OUT 1
IF_OUT 2
NC
FROM/TO POWER
GND
P.CON+5V
P.CON+32V
UNREG+5V
UNREG+4V
FROM/TO SHIELD DIGITAL
W903
W898
W899
W900
W901
W902
FROM/TO SWITCH/AMP
AFT
DTUNER_SPDIF
AFT_1
AFT_2
SIF
IF_OUT_2
IF_OUT_1
IF_AGC
C5824
6.3V
100
C5815
B 0.1
B5803
B5801
BLM18PG181SN1D
B5802
C5802
0.1 B
L5801
22uH
L5802
22uH
W917
C5805
0.1 B
C5806
6.3V 220
YK
R5817
2.2K
C5807
0.01 B
R5820
100K
L5803
100uH
SW
Q5801
KRA101SRTK
C5808
0.1 B
TC7W66FU
SW
IC5801
1.86
1.87
4.85
5.01
W914
W915
W851
R5807
8.2K
R5811
4.7K
R5812
390K
R5815
12K
R5806
100K
C5810
0.1 B
R5808
8.2K
R5809
4.7K
IF AMP Q5804
2SC3841-T1B_T63
IF AMP Q5805
2SC3841-T1B_T63
C5813
16V 10V-S
IF AMP Q5803
2SC3841-T1B_T63
R5810
1K
C5814
0.0022 B
R5813
75
R5816
12K
R5814
2.7K
55
L5804
22uH
C5809
0.47 B
C5811
CH
33P
C5812
0.01 B
SW
Q5802
KRC103SRTK
C5845
CH47P
C5844
CH47P
TKC-W20P-U1 CP5801
1 UNREG+5V
2 UNREG+5V
3 UNREG+4V
4 UNREG+4V
5 UNREG+4V
6 REG +5V
7 GND
8 GND
9 Y OUT
10 U OUT
11 GND
12 GND
13 V OUT
14 GND
15 GND
16 CVBS OUT
17 AUDIO MUTE-L
18 SD-H
19 AFT_1
20 AFT_2
UNREG+5V
UNREG+4V
P.CON+5V
RF_SW
DTUNER_Y
DTUNER_PB
TU_I2C_CLK
TU_I2C_DATA
DTUNER_PR
DTUNER_CVBS
AUDIO_MUTE_L
DTUNER_SD_H
AFT_1
AFT_2
FROM/TO AV SWITCH
TUNER_VIDEO
DTUNER_Y
DTUNER_PB
DTUNER_PR
DTUNER_CVBS
AUDIO_MUTE_L
DTUNER_RESET
DTUNER_SD_H
DTUNER_RX
DTUNER_TX
DTUNER_POWER
TKC-W20P-U1 CP5802
1 DTV_RESET
2 DTV POWER
3 TX (X240)
4 RX (X240)
5 SPDIF OUT
6 I2SSOCK_OUTA
7 I2SSDO_OUTA
8 I2SWS_OUTA
9 I2SSCLK_OUTA
10 I2SSDO_IN
11 I2SWS_IN
12 I2SSCLK_IN
13 TU I2C DATA
14 TU I2C CLK
15 RF_SW
16 IF AGC
17 GND
18 GND
19 IF OUT1
20 IF OUT2
DTUNER_RESET
DTUNER_POWER
DTUNER_RX
DTUNER_TX
DTUNER_SPDIF
I2SSD0_OUTA
I2SWS_OUTA
I2SSCLK_OUTA
I2SSD0_IN
I2SWS_IN
I2SSCLK_IN
TU_I2C_DATA
TU_I2C_CLK
RF_SW
IF_AGC
IF_OUT_1
IF_OUT_2
C5836 47P CH
C5837 47P CH
C5838 47P CH
C5839 47P CH
C5826 47P CH
C5841 47P CH
C5843 47P CH
FROM/TO STEREO
I2SSD0_OUTA
I2SWS_OUTA
I2SSCLK_OUTA
I2SSD0_IN
I2SWS_IN
I2SSCLK_IN
SIF
ACCESSORY
CD3801
BT001
BT002
TM101

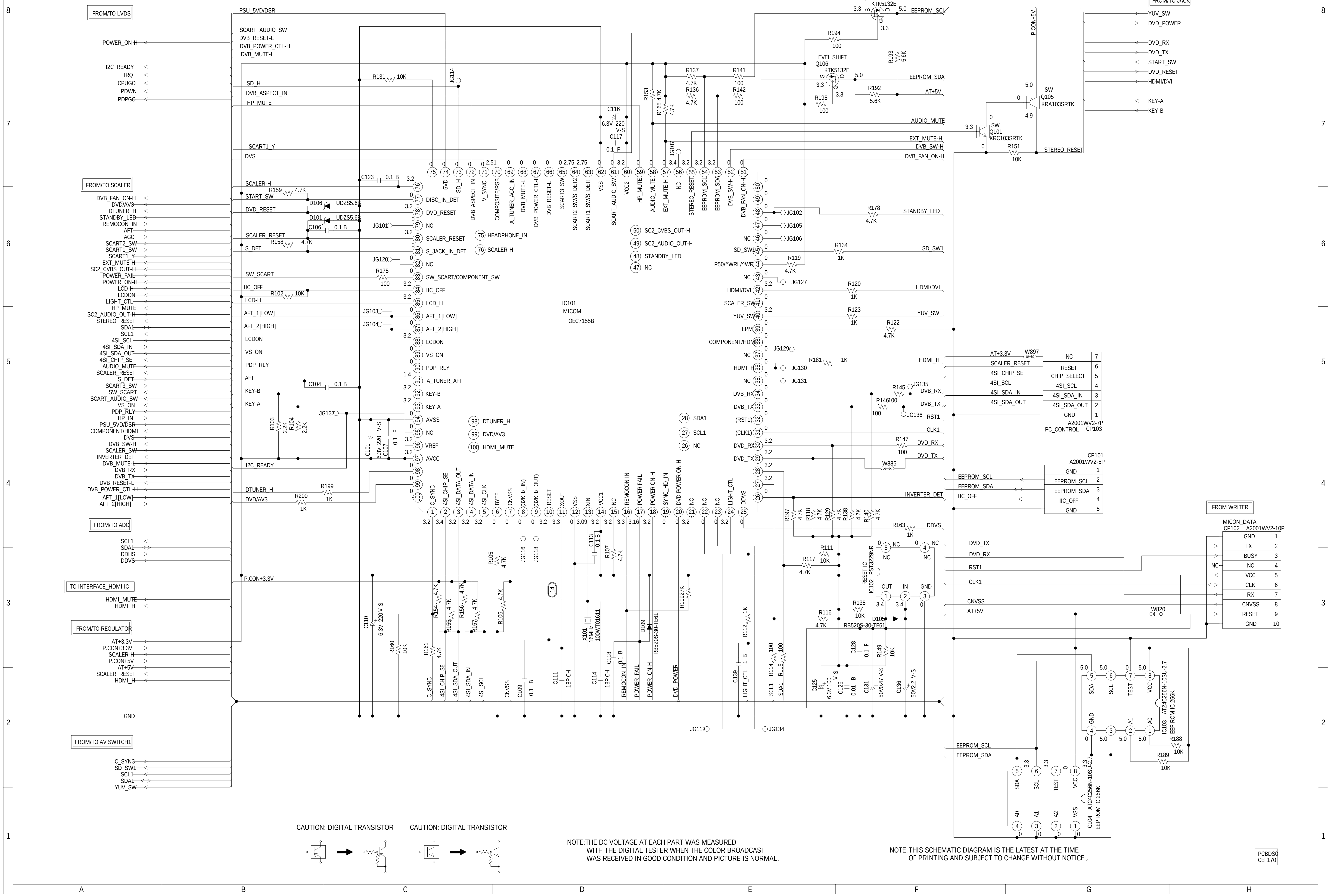
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

⇦ AUDIO SIGNAL
◀ VIDEO SIGNAL
⇦ TUNER VIDEO SIGNAL
◀ LUMINANCE SIGNAL
◀ COMPONENT SIGNAL(U)
◀ COMPONENT SIGNAL(V)
⇦ COLOR SIGNAL

PCBD20
CMF080

# MICOM SCHEMATIC DIAGRAM (SCALER PCB)

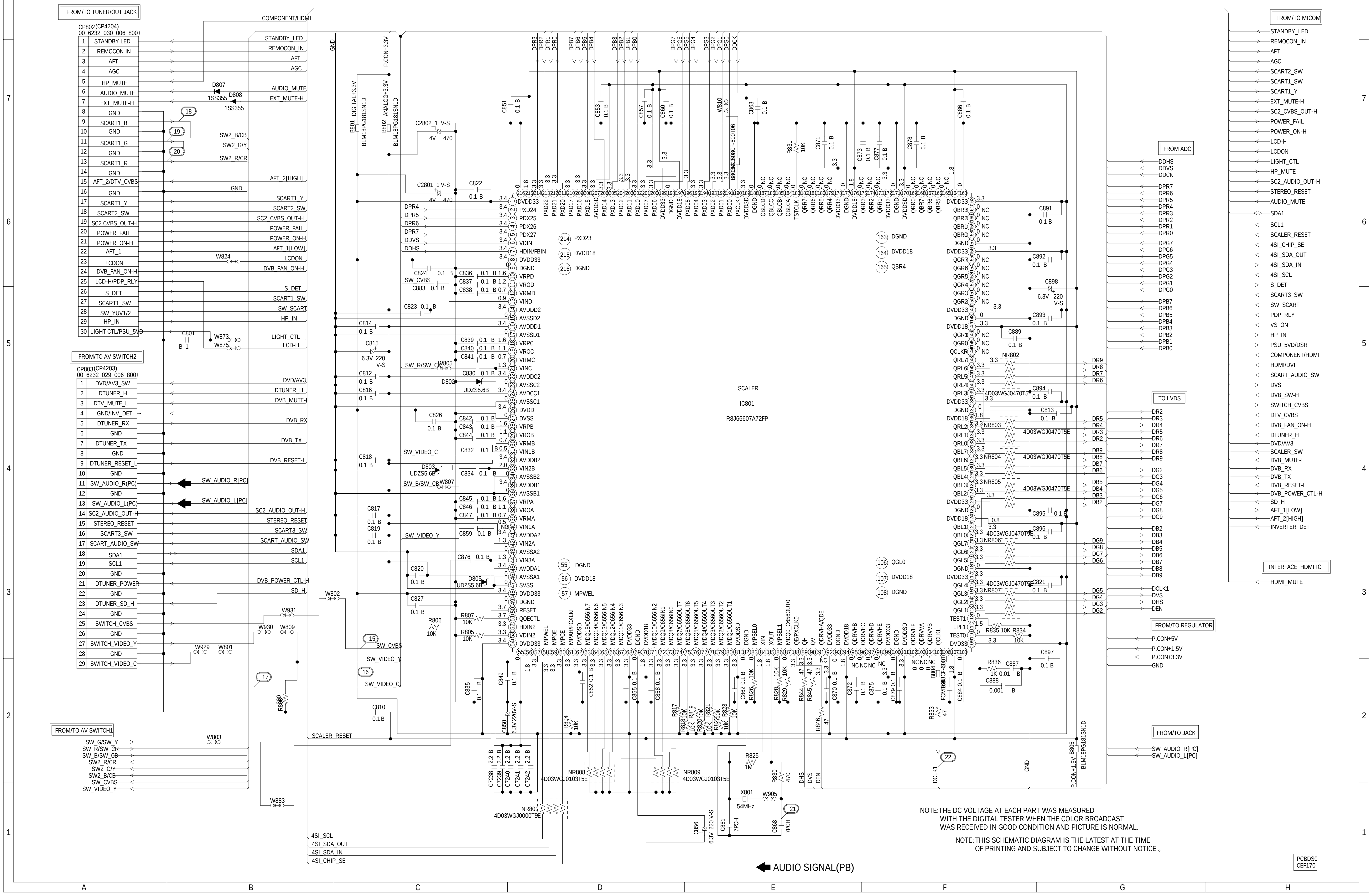

FROM/TO LVDS
POWER_ON-H
I2C_READY
IRQ
CPUGO
PDWN
PDPGO
FROM/TO SCALER
DVB_FAN_ON-H
DVD/AV3
DTUNER_H
STANDBY_LED
REMOCON_IN
AFT
AGC
SCART2_SW
SCART1_SW
SCART1_Y
EXT_MUTE-H
SC2_CVBS_OUT-H
POWER_FAIL
POWER_ON-H
LCD-H
LCDON
LIGHT_CTL
HP_MUTE
SC2_AUDIO_OUT-H
STEREO_RESET
SDA1
SCL1
4SI_SCL
4SI_SDA_IN
4SI_SDA_OUT
4SI_CHIP_SE
AUDIO_MUTE
SCALER_RESET
S_DET
SCART3_SW
SW_SCART
SCART_AUDIO_SW
VS_ON
PDP_RLY
HP_IN
PSU_5VD/DSR
COMPONENT/HDMI
DVS
DVB_SW-H
SCALER_SW
INVERTER_DET
DVB_MUTE-L
DVB_RX
DVB_TX
DVB_RESET-L
DVB_POWER_CTL-H
AFT_1[LOW]
AFT_2[HIGH]
FROM/TO ADC
SCL1
SDA1
DDHS
DDVS
TO INTERFACE_HDMI IC
HDMI_MUTE
HDMI_H
FROM/TO REGULATOR
AT+3.3V
P.CON+3.3V
SCALER-H
P.CON+5V
AT+5V
SCALER_RESET
HDMI_H
GND
FROM/TO AV SWITCH1
C_SYNC
SD_SW1
SCL1
SDA1
YUV_SW
IC101
MICOM
OEC7155B
LEVEL SHIFT
Q104
KTK5132E
LEVEL SHIFT
Q106
KTK5132E
SW
Q105
KRA103SRTK
SW
Q101
KRC103SRTK
FROM/TO JACK
YUV_SW
DVD_POWER
DVD_RX
DVD_TX
START_SW
DVD_RESET
HDMI/DVI
KEY-A
KEY-B
A2001WV2-7P
CP103
PC_CONTROL
NC
RESET
CHIP_SELECT
4SI_SCL
4SI_SDA_IN
4SI_SDA_OUT
GND
CP101
A2001WV2-5P
GND
EEPROM_SCL
EEPROM_SDA
IIC_OFF
GND
FROM WRITER
MICON_DATA
CP102
A2001WV2-10P
GND
TX
BUSY
NC
VCC
CLK
RX
CNVSS
RESET
GND
RESET IC
IC102
PST3229NR
X101
16MHz
100WT01611
IC103
AT24C256N-10SU-2.7
EEP ROM IC 256K
IC104
AT24C256N-10SU-2.7
EEP ROM IC 256K
CAUTION: DIGITAL TRANSISTOR
CAUTION: DIGITAL TRANSISTOR
PCBDS0
CEF170

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE:THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

# SCALER SCHEMATIC DIAGRAM

## (SCALER PCB)


FROM/TO TUNER/OUT JACK
CP802(CP4204)
00_6232_030_006_800+
STANDBY LED
REMOCON IN
AFT
AGC
HP_MUTE
AUDIO_MUTE
EXT_MUTE-H
GND
SCART1_B
SCART1_G
SCART1_R
AFT_2/DTV_CVBS
SCART1_Y
SCART2_SW
SC2 CVBS_OUT-H
POWER_FAIL
POWER_ON-H
AFT_1
LCDON
DVB_FAN_ON-H
LCD-H/PDP_RLY
S_DET
SCART1_SW
SW_YUV1/2
HP_IN
LIGHT CTL/PSU_5VD
FROM/TO AV SWITCH2
CP803(CP4203)
00_6232_029_006_800+
DVD/AV3_SW
DTUNER_H
DTV_MUTE_L
GND/INV_DET
DTUNER_RX
DTUNER_TX
DTUNER_RESET_L
SW_AUDIO_R(PC)
SW_AUDIO_L(PC)
SC2_AUDIO_OUT-H
STEREO_RESET
SCART3_SW
SCART_AUDIO_SW
SDA1
SCL1
DTUNER_POWER
DTUNER_SD_H
SWITCH_CVBS
SWITCH_VIDEO_Y
SWITCH_VIDEO_C
FROM/TO AV SWITCH1
SW_G/SW_Y
SW_R/SW_CR
SW_B/SW_CB
SW2_R/CR
SW2_G/Y
SW2_B/CB
SW_CVBS
SW_VIDEO_Y
COMPONENT/HDMI
SCALER_RESET
4SI_SCL
4SI_SDA_OUT
4SI_SDA_IN
4SI_CHIP_SE
SCALER
IC801
R8J66607A72FP
NR801
4D03WGJ0000T5E
NR808
4D03WGJ0103T5E
NR809
4D03WGJ0103T5E
X801
54MHz
FROM ADC
TO LVDS
FROM/TO MICOM
STANDBY_LED
REMOCON_IN
SCART2_SW
SCART1_SW
SCART1_Y
SC2_CVBS_OUT-H
POWER_ON-H
LCD-H
LIGHT_CTL
HP_MUTE
SC2_AUDIO_OUT-H
STEREO_RESET
SCALER_RESET
4SI_CHIP_SE
4SI_SDA_OUT
4SI_SDA_IN
4SI_SCL
SCART3_SW
SW_SCART
PDP_RLY
VS_ON
PSU_5VD/DSR
HDMI/DVI
SCART_AUDIO_SW
DVS
DVB_SW-H
SWITCH_CVBS
DTV_CVBS
DVB_FAN_ON-H
DTUNER_H
DVD/AV3
SCALER_SW
DVB_MUTE-L
DVB_RX
DVB_TX
DVB_RESET-L
DVB_POWER_CTL-H
SD_H
AFT_1[LOW]
AFT_2[HIGH]
INVERTER_DET
INTERFACE_HDMI IC
HDMI_MUTE
FROM/TO REGULATOR
P.CON+5V
P.CON+1.5V
P.CON+3.3V
GND
FROM/TO JACK
SW_AUDIO_R[PC]
SW_AUDIO_L[PC]
AUDIO SIGNAL(PB)
PCBDS0
CEF170

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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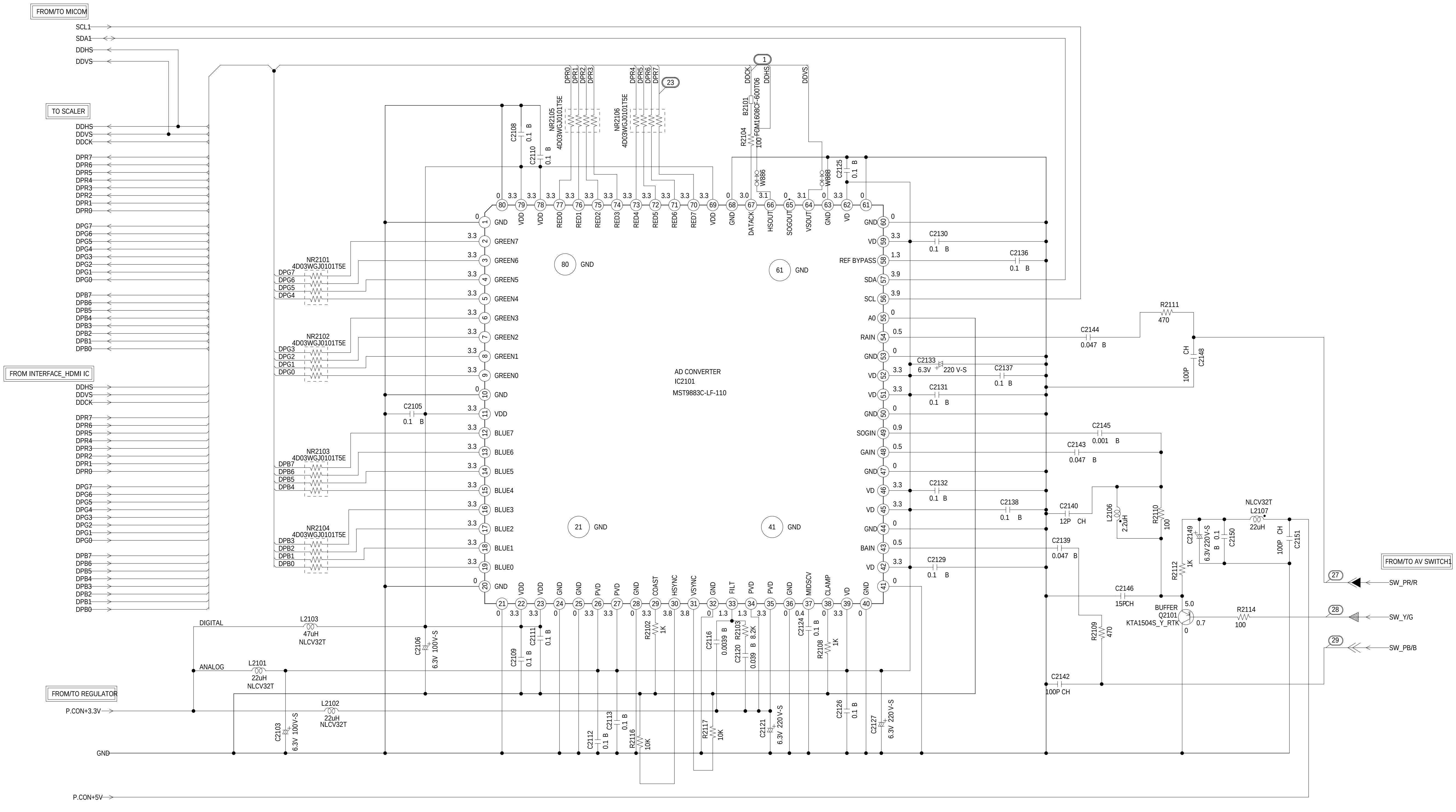
# ADC SCHEMATIC DIAGRAM

## (SCALER PCB)


FROM/TO MICOM
SCL1
SDA1
DDHS
DDVS
TO SCALER
DDHS
DDVS
DDCK
DPR7
DPR6
DPR5
DPR4
DPR3
DPR2
DPR1
DPR0
DPG7
DPG6
DPG5
DPG4
DPG3
DPG2
DPG1
DPG0
DPB7
DPB6
DPB5
DPB4
DPB3
DPB2
DPB1
DPB0
FROM INTERFACE_HDMI IC
NR2101
4D03WGJ0101T5E
NR2102
4D03WGJ0101T5E
NR2103
4D03WGJ0101T5E
NR2104
4D03WGJ0101T5E
NR2105
4D03WGJ0101T5E
NR2106
4D03WGJ0101T5E
C2108
0.1 B
C2110
0.1 B
C2105
0.1 B
R2104
100
B2101
FCM1608CF-600T06
W886
W888
C2125
0.1 B
1
23
DDCK
DDHS
DDVS
GND
GREEN7
GREEN6
GREEN5
GREEN4
GREEN3
GREEN2
GREEN1
GREEN0
VDD
BLUE7
BLUE6
BLUE5
BLUE4
BLUE3
BLUE2
BLUE1
BLUE0
RED0
RED1
RED2
RED3
RED4
RED5
RED6
RED7
DATACK
HSOUT
SOGOUT
VSOUT
VD
REF BYPASS
SDA
SCL
A0
RAIN
SOGIN
GAIN
BAIN
PVD
COAST
HSYNC
VSYNC
FILT
MIDSCV
CLAMP
80 GND
61 GND
21 GND
41 GND
AD CONVERTER
IC2101
MST9883C-LF-110
C2130
0.1 B
C2136
0.1 B
C2133
6.3V 220 V-S
C2137
0.1 B
C2131
0.1 B
C2132
0.1 B
C2138
0.1 B
C2129
0.1 B
R2111
470
C2144
0.047 B
C2148
CH
100P
C2145
0.001 B
C2143
0.047 B
C2140
12P CH
L2106
2.2uH
R2110
100
C2139
0.047 B
C2146
15P CH
R2112
1K
C2149
6.3V 220V-S
C2150
0.1 B
NLCV32T
L2107
22uH
C2151
100P CH
BUFFER
Q2101
KTA1504S_Y_RTK
5.0
0.7
0
R2114
100
R2109
470
C2142
100P CH
FROM/TO AV SWITCH1
27
SW_PR/R
28
SW_Y/G
29
SW_PB/B
DIGITAL
L2103
47uH
NLCV32T
ANALOG
L2101
22uH
NLCV32T
FROM/TO REGULATOR
P.CON+3.3V
L2102
22uH
NLCV32T
C2103
6.3V 100V-S
GND
P.CON+5V
C2106
6.3V 100V-S
C2109
0.1 B
C2111
0.1 B
R2102
1K
C2116
0.0039 B
R2103
8.2K
C2120
0.039 B
C2124
0.1 B
R2108
1K
C2112
0.1 B
C2113
0.1 B
R2116
10K
R2117
10K
C2121
6.3V 220 V-S
C2126
0.1 B
C2127
6.3V 220 V-S

NOTE:THE DC VOLTAGE EACH PART WAS
MEASURED WITH THE DIGITAL TESTER
DURING PLAYBACK.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

◀ R.SIGNAL
◁ G.SIGNAL
≪ B.SIGNAL

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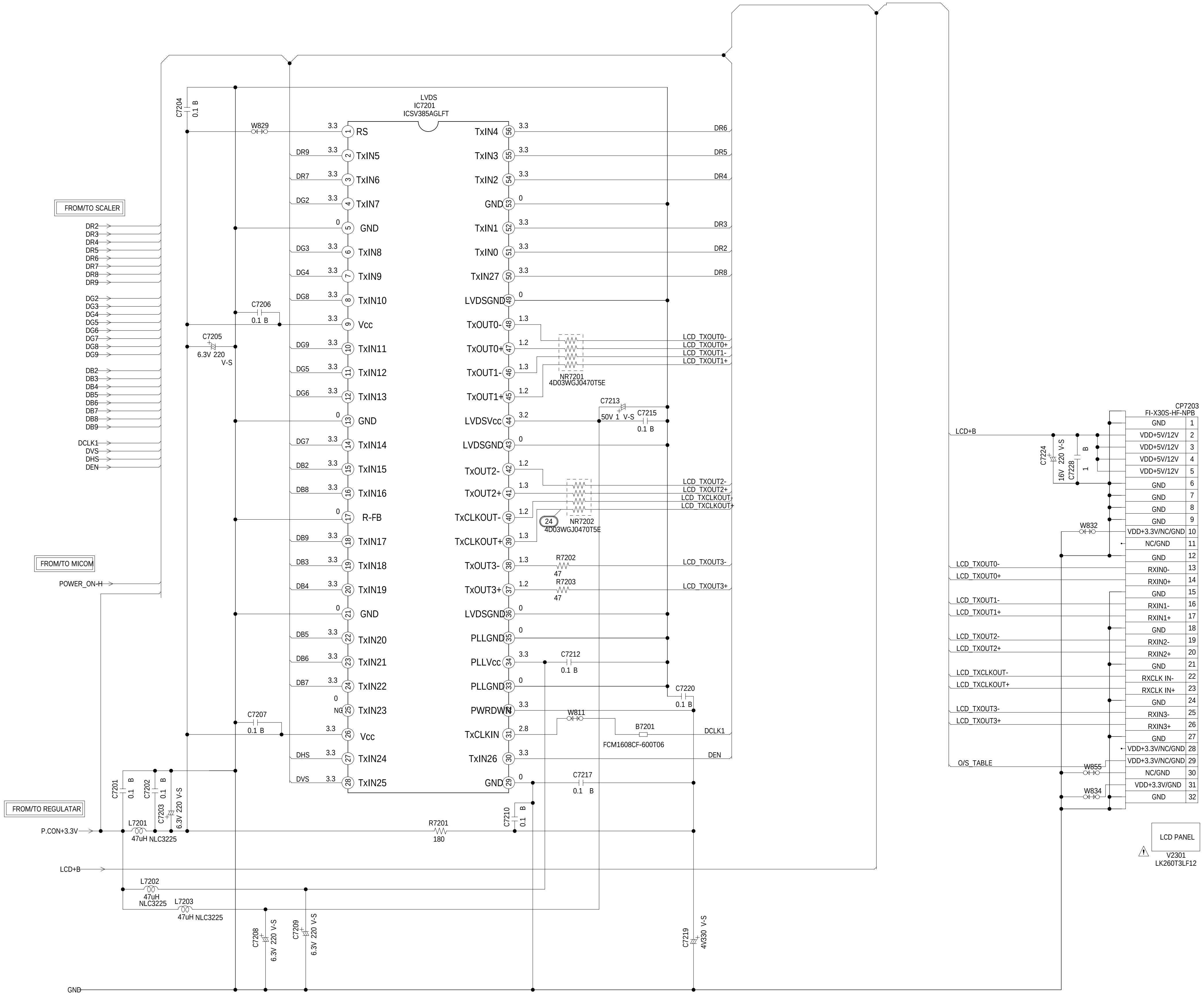
CEF170

# LVDS SCHEMATIC DIAGRAM

(SCALER PCB)



FROM/TO SCALER
DR2 DR3 DR4 DR5 DR6 DR7 DR8 DR9
DG2 DG3 DG4 DG5 DG6 DG7 DG8 DG9
DB2 DB3 DB4 DB5 DB6 DB7 DB8 DB9
DCLK1 DVS DHS DEN
FROM/TO MICOM
POWER_ON-H
FROM/TO REGULATAR
P.CON+3.3V
LCD+B
GND
LVDS
IC7201
ICSV385AGLFT
1 RS
2 TxIN5
3 TxIN6
4 TxIN7
5 GND
6 TxIN8
7 TxIN9
8 TxIN10
9 Vcc
10 TxIN11
11 TxIN12
12 TxIN13
13 GND
14 TxIN14
15 TxIN15
16 TxIN16
17 R-FB
18 TxIN17
19 TxIN18
20 TxIN19
21 GND
22 TxIN20
23 TxIN21
24 TxIN22
25 TxIN23 NC
26 Vcc
27 TxIN24
28 TxIN25
56 TxIN4
55 TxIN3
54 TxIN2
53 GND
52 TxIN1
51 TxIN0
50 TxIN27
49 LVDSGND
48 TxOUT0-
47 TxOUT0+
46 TxOUT1-
45 TxOUT1+
44 LVDSVcc
43 LVDSGND
42 TxOUT2-
41 TxOUT2+
40 TxCLKOUT-
39 TxCLKOUT+
38 TxOUT3-
37 TxOUT3+
36 LVDSGND
35 PLLGND
34 PLLVcc
33 PLLGND
32 PWRDWN
31 TxCLKIN
30 TxIN26
29 GND
W829
C7204 0.1 B
C7206 0.1 B
C7205 6.3V 220 V-S
C7207 0.1 B
NR7201 4D03WGJ0470T5E
NR7202 4D03WGJ0470T5E
24
C7213 50V 1 V-S
C7215 0.1 B
R7202 47
R7203 47
C7212 0.1 B
C7220 0.1 B
W811
B7201 FCM1608CF-600T06
C7217 0.1 B
C7210 0.1 B
R7201 180
C7201 0.1 B
C7202 0.1 B
C7203 6.3V 220 V-S
L7201 47uH NLC3225
L7202 47uH NLC3225
L7203 47uH NLC3225
C7208 6.3V 220 V-S
C7209 6.3V 220 V-S
C7219 4V330 V-S
LCD_TXOUT0- LCD_TXOUT0+ LCD_TXOUT1- LCD_TXOUT1+
LCD_TXOUT2- LCD_TXOUT2+ LCD_TXCLKOUT- LCD_TXCLKOUT+
LCD_TXOUT3- LCD_TXOUT3+
DCLK1 DEN
O/S_TABLE
C7224 16V 220 V-S
C7228 1 B
W832 W855 W834
CP7203
FI-X30S-HF-NPB
1 GND
2 VDD+5V/12V
3 VDD+5V/12V
4 VDD+5V/12V
5 VDD+5V/12V
6 GND
7 GND
8 GND
9 GND
10 VDD+3.3V/NC/GND
11 NC/GND
12 GND
13 RXIN0-
14 RXIN0+
15 GND
16 RXIN1-
17 RXIN1+
18 GND
19 RXIN2-
20 RXIN2+
21 GND
22 RXCLK IN-
23 RXCLK IN+
24 GND
25 RXIN3-
26 RXIN3+
27 GND
28 VDD+3.3V/NC/GND
29 VDD+3.3V/NC/GND
30 NC/GND
31 VDD+3.3V/GND
32 GND
LCD PANEL
V2301
LK260T3LF12

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
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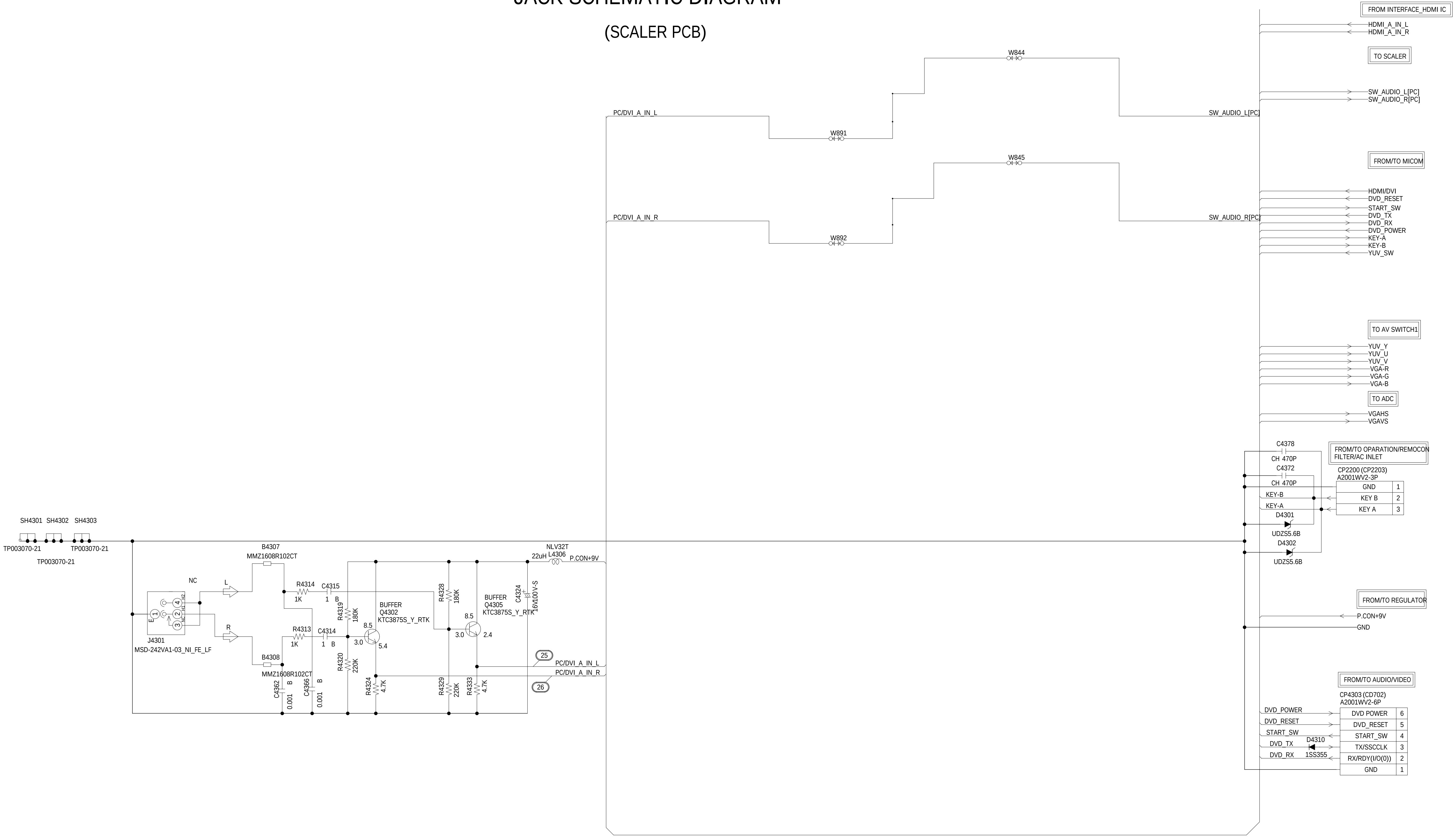
PCBDS0
CEF170

# JACK SCHEMATIC DIAGRAM

## (SCALER PCB)


FROM INTERFACE_HDMI IC
HDMI_A_IN_L
HDMI_A_IN_R
TO SCALER
SW_AUDIO_L[PC]
SW_AUDIO_R[PC]
W844
W891
W845
W892
PC/DVI_A_IN_L
PC/DVI_A_IN_R
SW_AUDIO_L[PC]
SW_AUDIO_R[PC]
FROM/TO MICOM
HDMI/DVI
DVD_RESET
START_SW
DVD_TX
DVD_RX
DVD_POWER
KEY-A
KEY-B
YUV_SW
TO AV SWITCH1
YUV_Y
YUV_U
YUV_V
VGA-R
VGA-G
VGA-B
TO ADC
VGAHS
VGAVS
C4378
CH 470P
C4372
CH 470P
FROM/TO OPARATION/REMOCON FILTER/AC INLET
CP2200 (CP2203)
A2001WV2-3P
GND 1
KEY B 2
KEY A 3
KEY-B
KEY-A
D4301
UDZS5.6B
D4302
UDZS5.6B
FROM/TO REGULATOR
P.CON+9V
GND
FROM/TO AUDIO/VIDEO
CP4303 (CD702)
A2001WV2-6P
DVD_POWER
DVD_RESET
START_SW
DVD_TX
DVD_RX
D4310
1SS355
DVD POWER 6
DVD_RESET 5
START_SW 4
TX/SSCCLK 3
RX/RDY(I/O(0)) 2
GND 1
SH4301 SH4302 SH4303
TP003070-21
TP003070-21
TP003070-21
B4307
MMZ1608R102CT
NC
L
R
E
J4301
MSD-242VA1-03_NI_FE_LF
R4314
1K
C4315
1 B
R4313
1K
C4314
1 B
B4308
MMZ1608R102CT
C4362 B 0.001
C4366 B 0.001
R4319 180K
R4320 220K
R4324 4.7K
BUFFER
Q4302
KTC3875S_Y_RTK
8.5
3.0
5.4
R4328 180K
R4329 220K
R4333 4.7K
BUFFER
Q4305
KTC3875S_Y_RTK
8.5
3.0
2.4
C4324 16V100V-S
NLV32T
22uH L4306
P.CON+9V
25
26
PC/DVI_A_IN_L
PC/DVI_A_IN_R

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

⇦ AUDIO SIGNAL(REC)

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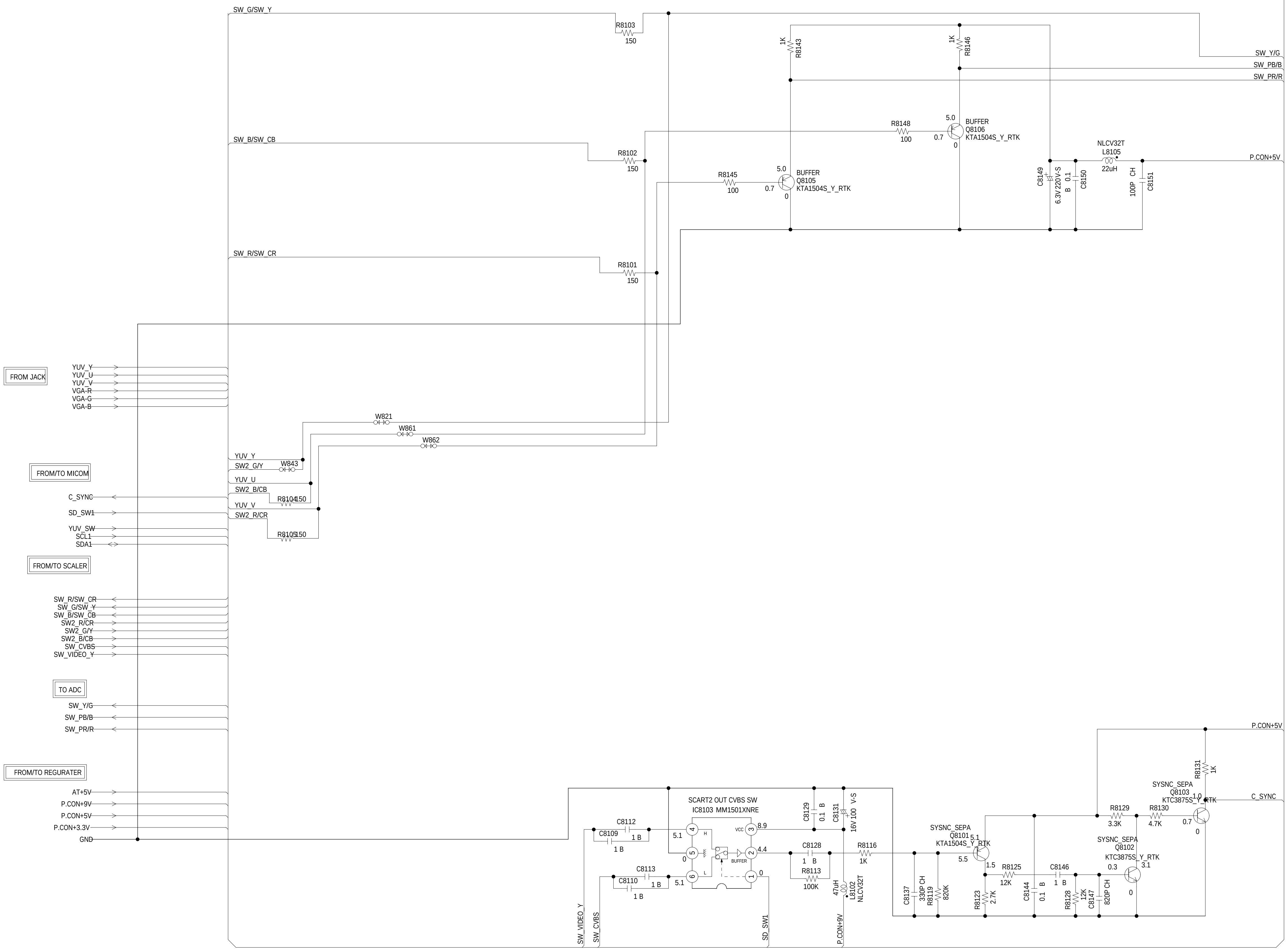
# AV SWITCH1 SCHEMATIC DIAGRAM

## (SCALER PCB)



SW_G/SW_Y
R8103
150
1K
R8143
1K
R8146
SW_Y/G
SW_PB/B
SW_PR/R
SW_B/SW_CB
R8148
100
5.0
0.7
0
BUFFER
Q8106
KTA1504S_Y_RTK
NLCV32T
L8105
22uH
P.CON+5V
R8102
150
R8145
100
BUFFER
Q8105
KTA1504S_Y_RTK
C8149
6.3V 220V-S
B 0.1
C8150
100P CH
C8151
SW_R/SW_CR
R8101
150
FROM JACK
YUV_Y
YUV_U
YUV_V
VGA-R
VGA-G
VGA-B
W821
W861
W862
YUV_Y
SW2_G/Y
W843
YUV_U
SW2_B/CB
R8104 150
YUV_V
SW2_R/CR
R8105 150
FROM/TO MICOM
C_SYNC
SD_SW1
YUV_SW
SCL1
SDA1
FROM/TO SCALER
SW_R/SW_CR
SW_G/SW_Y
SW_B/SW_CB
SW2_R/CR
SW2_G/Y
SW2_B/CB
SW_CVBS
SW_VIDEO_Y
TO ADC
SW_Y/G
SW_PB/B
SW_PR/R
FROM/TO REGURATER
AT+5V
P.CON+9V
P.CON+5V
P.CON+3.3V
GND
SCART2 OUT CVBS SW
IC8103 MM1501XNRE
C8112
C8109
1 B
1 B
5.1
0
8.9
4.4
VCC
BUFFER
C8113
C8110
1 B
1 B
5.1
0
C8129
0.1 B
C8131
16V 100 V-S
C8128
1 B
R8113
100K
R8116
1K
47uH
L8102
NLCV32T
SW_VIDEO_Y
SW_CVBS
SD_SW1
P.CON+9V
SYSNC_SEPA
Q8101
KTA1504S_Y_RTK
5.1
5.5
1.5
C8137
330P CH
R8119
820K
R8122
2.7K
R8125
12K
C8144
0.1 B
C8146
1 B
R8128
12K
C8147
820P CH
SYSNC_SEPA
Q8102
KTC3875S_Y_RTK
0.3
3.1
0
R8129
3.3K
R8130
4.7K
SYSNC_SEPA
Q8103
KTC3875S_Y_RTK
1.0
0.7
0
R8131
1K
P.CON+5V
C_SYNC

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
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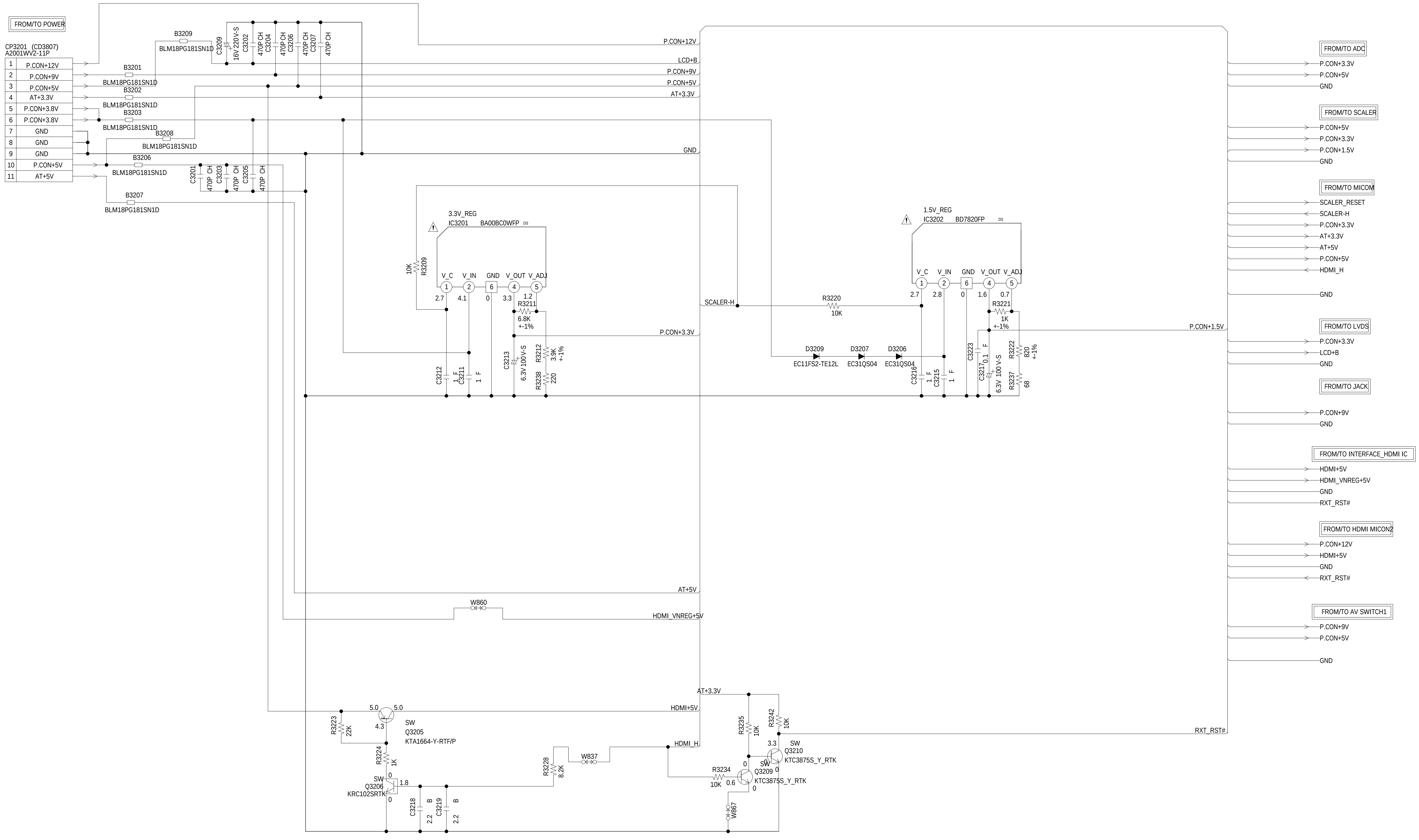
PCBDS0
CEF170

# REGULATOR SCHEMATIC DIAGRAM

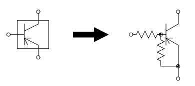
## (SCALER PCB)


FROM/TO POWER
CP3201 (CD3807)
A2001WV2-11P
1 P.CON+12V
2 P.CON+9V
3 P.CON+5V
4 AT+3.3V
5 P.CON+3.8V
6 P.CON+3.8V
7 GND
8 GND
9 GND
10 P.CON+5V
11 AT+5V
B3201 BLM18PG181SN1D
B3202 BLM18PG181SN1D
B3203 BLM18PG181SN1D
B3208 BLM18PG181SN1D
B3206 BLM18PG181SN1D
B3207 BLM18PG181SN1D
B3209 BLM18PG181SN1D
C3209 16V 220V-S
C3202 470P CH
C3204 470P CH
C3206 470P CH
C3207 470P CH
C3201 470P CH
C3203 470P CH
C3205 470P CH
P.CON+12V
LCD+B
P.CON+9V
P.CON+5V
AT+3.3V
GND
3.3V_REG
IC3201 BA00BC0WFP
V_C V_IN GND V_OUT V_ADJ
2.7 4.1 0 3.3 1.2
R3209 10K
R3211 6.8K +-1%
C3212 1 F
C3211 1 F
C3213 6.3V 100 V-S
R3212 3.9K +-1%
R3238 220
P.CON+3.3V
SCALER-H
R3220 10K
D3209 EC11FS2-TE12L
D3207 EC31QS04
D3206 EC31QS04
1.5V_REG
IC3202 BD7820FP
V_C V_IN GND V_OUT V_ADJ
2.7 2.8 0 1.6 0.7
R3221 1K +-1%
C3216 1 F
C3215 1 F
C3223 0.1 F
C3217 6.3V 100 V-S
R3222 820 +-1%
R3237 68
P.CON+1.5V
AT+5V
W860
HDMI_VNREG+5V
AT+3.3V
HDMI+5V
HDMI_H
Q3205 SW KTA1664-Y-RTF/P
5.0 5.0 4.3
R3223 22K
R3224 1K
Q3206 SW KRC102SRTK
1.8 0 0
C3218 B 2.2
C3219 B 2.2
R3228 8.2K
W837
R3235 10K
R3242 10K
Q3210 SW KTC3875S_Y_RTK
3.3 0
R3234 10K
Q3209 SW KTC3875S_Y_RTK
0 0.6 0
W867
RXT_RST#
FROM/TO ADC
P.CON+3.3V
P.CON+5V
GND
FROM/TO SCALER
P.CON+5V
P.CON+3.3V
P.CON+1.5V
GND
FROM/TO MICOM
SCALER_RESET
SCALER-H
P.CON+3.3V
AT+3.3V
AT+5V
P.CON+5V
HDMI_H
GND
FROM/TO LVDS
P.CON+3.3V
LCD+B
GND
FROM/TO JACK
P.CON+9V
GND
FROM/TO INTERFACE_HDMI IC
HDMI+5V
HDMI_VNREG+5V
GND
RXT_RST#
FROM/TO HDMI MICON2
P.CON+12V
HDMI+5V
GND
RXT_RST#
FROM/TO AV SWITCH1
P.CON+9V
P.CON+5V
GND

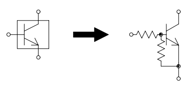
CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION:LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR



CAUTION: DIGITAL TRANSISTOR



NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
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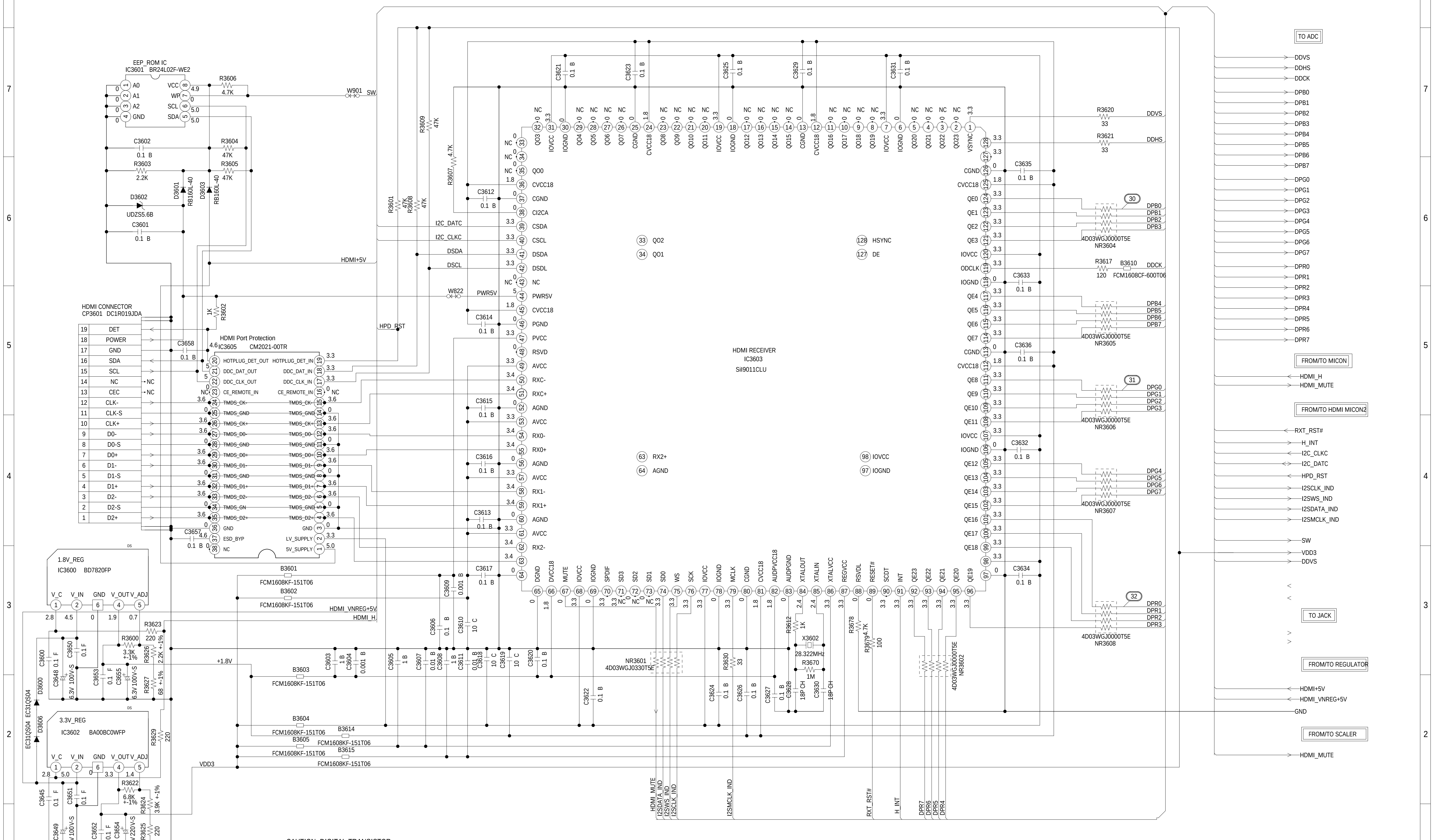
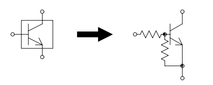
# INTERFACE_HDMI IC SCHEMATIC DIAGRAM

## (SCALER PCB)


EEP_ROM IC
IC3601 BR24L02F-WE2
A0
A1
A2
GND
VCC
WP
SCL
SDA
R3606 4.7K
W901
SW
C3602 0.1 B
R3604 47K
R3603 2.2K
R3605 47K
D3601 RB160L-40
D3603 RB160L-40
D3602 UDZS5.6B
C3601 0.1 B
HDMI+5V
R3609 47K
R3607 4.7K
R3601 47K
R3608 47K
I2C_DATC
I2C_CLKC
DSDA
DSCL
W822
PWR5V
HPD_RST
R3602 1K
HDMI CONNECTOR
CP3601 DC1R019JDA
DET
POWER
GND
SDA
SCL
NC
CEC
CLK-
CLK-S
CLK+
D0-
D0-S
D0+
D1-
D1-S
D1+
D2-
D2-S
D2+
HDMI Port Protection
IC3605 CM2021-00TR
C3658 0.1 B
C3657 0.1 B
HOTPLUG_DET_OUT
HOTPLUG_DET_IN
DDC_DAT_OUT
DDC_DAT_IN
DDC_CLK_OUT
DDC_CLK_IN
CE_REMOTE_IN
CE_REMOTE_OUT
TMDS_CK-
TMDS_GND
TMDS_CK+
TMDS_D0-
TMDS_D0+
TMDS_D1-
TMDS_D1+
TMDS_D2-
TMDS_D2+
ESD_BYP
LV_SUPPLY
5V_SUPPLY
HDMI RECEIVER
IC3603
Sil9011CLU
C3612 0.1 B
C3614 0.1 B
C3615 0.1 B
C3616 0.1 B
C3613 0.1 B
C3617 0.1 B
C3621 0.1 B
C3623 0.1 B
C3625 0.1 B
C3629 0.1 B
C3631 0.1 B
C3635 0.1 B
C3633 0.1 B
C3636 0.1 B
C3632 0.1 B
C3634 0.1 B
R3620 33
R3621 33
DDVS
DDHS
DDCK
R3617 120
B3610 FCM1608CF-600T06
NR3604 4D03WGJ0000T5E
NR3605 4D03WGJ0000T5E
NR3606 4D03WGJ0000T5E
NR3607 4D03WGJ0000T5E
NR3608 4D03WGJ0000T5E
NR3601 4D03WGJ0330T5E
NR3602 4D03WGJ0000T5E
30
31
32
1.8V_REG
IC3600 BD7820FP
V_C
V_IN
GND
V_OUT
V_ADJ
R3623 220
R3600 3.3K +-1%
R3626 2.2K +-1%
R3627 68 +-1%
C3600
C3648 0.1 F
C3650 0.1 F
C3653 0.1 F
C3655 6.3V 100V-S
D3600
D3606
EC31QS04
3.3V_REG
IC3602 BA00BC0WFP
R3629 220
R3622 6.8K +-1%
R3624 3.9K +-1%
R3625 220
C3645 0.1 F
C3649 6.3V 100V-S
C3651 0.1 F
C3652 0.1 F
C3654 6.3V 220V-S
VDD3
+1.8V
B3601 FCM1608KF-151T06
B3602 FCM1608KF-151T06
B3603 FCM1608KF-151T06
B3604 FCM1608KF-151T06
B3605 FCM1608KF-151T06
B3614 FCM1608KF-151T06
B3615 FCM1608KF-151T06
HDMI_VNREG+5V
HDMI_H
C3603 1 B
C3604 0.001 B
C3605 1 B
C3606 0.1 B
C3607 1 B
C3608 0.01 B
C3609 0.001 B
C3610 10 C
C3611 1 B
C3618 0.01 B
C3619 10 C
C3620 0.1 B
C3622 0.1 B
C3624 0.1 B
C3626 0.1 B
C3627 0.1 B
C3628 18P CH
C3630 18P CH
R3612 1K
X3602 28.322MHz
R3670 1M
R3630 33
R3678 4.7K
R3679 100
HDMI_MUTE
I2SDATA_IND
I2SWS_IND
I2SCLK_IND
I2SMCLK_IND
RXT_RST#
H_INT
DPR7
DPR6
DPR5
DPR4
TO ADC
DDVS
DDHS
DDCK
DPB0
DPB1
DPB2
DPB3
DPB4
DPB5
DPB6
DPB7
DPG0
DPG1
DPG2
DPG3
DPG4
DPG5
DPG6
DPG7
DPR0
DPR1
DPR2
DPR3
DPR4
DPR5
DPR6
DPR7
FROM/TO MICON
HDMI_H
HDMI_MUTE
FROM/TO HDMI MICON2
RXT_RST#
H_INT
I2C_CLKC
I2C_DATC
HPD_RST
I2SCLK_IND
I2SWS_IND
I2SDATA_IND
I2SMCLK_IND
SW
VDD3
DDVS
TO JACK
FROM/TO REGULATOR
HDMI+5V
HDMI_VNREG+5V
GND
FROM/TO SCALER
HDMI_MUTE

CAUTION: DIGITAL TRANSISTOR



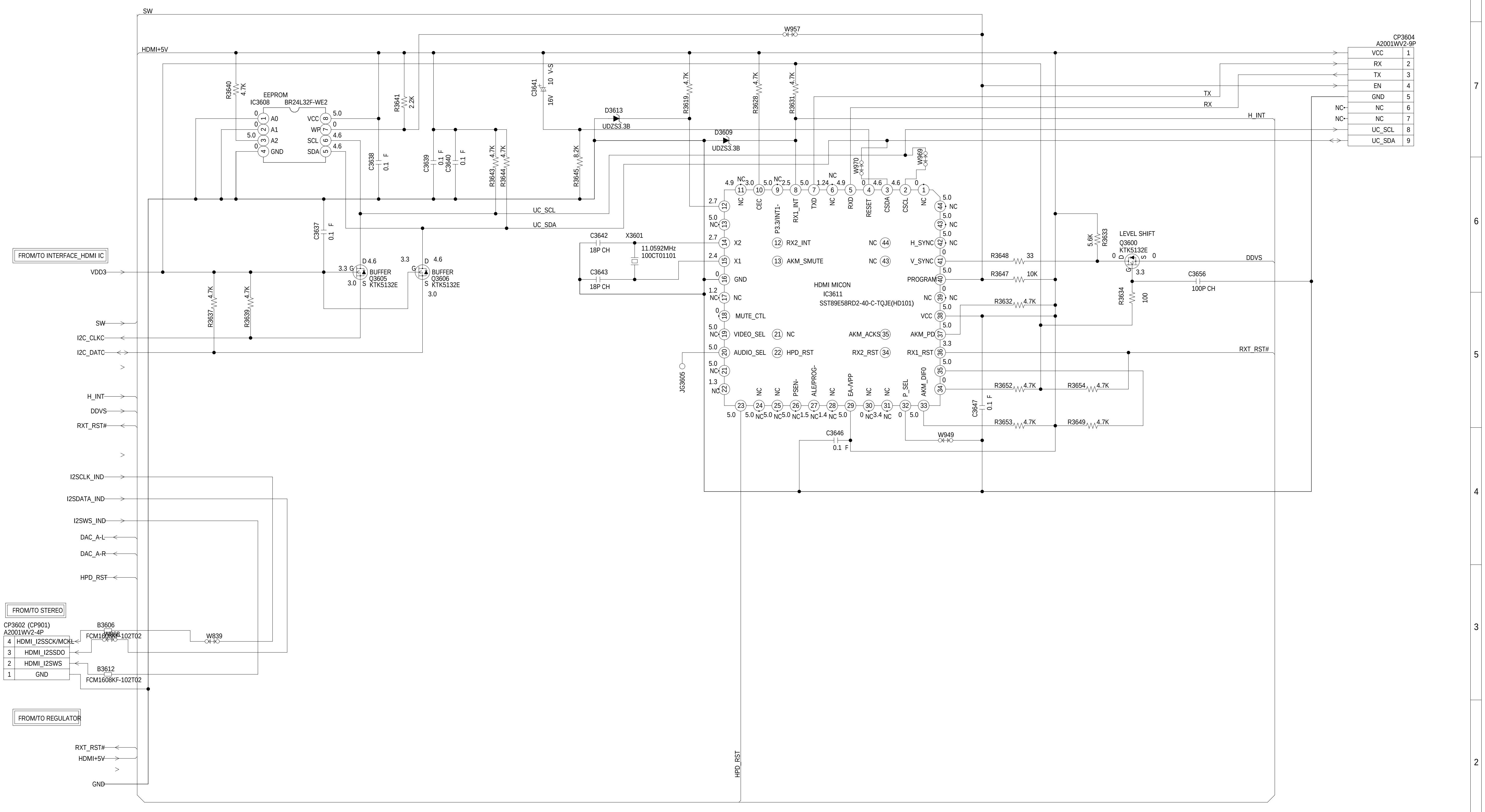
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDS0
CEF170

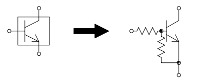
# HDMI MICON2 SCHEMATIC DIAGRAM

## (SCALER PCB)

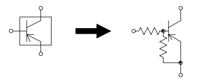


SW
HDMI+5V
W957
CP3604
A2001WV2-9P
VCC 1
RX 2
TX 3
EN 4
GND 5
NC 6
NC 7
UC_SCL 8
UC_SDA 9
TX
RX
H_INT
R3640 4.7K
EEPROM
IC3608
BR24L32F-WE2
A0
A1
A2
GND
VCC
WP
SCL
SDA
R3641 2.2K
C3641 10 V-S 16V
D3613 UDZS3.3B
D3609 UDZS3.3B
R3619 4.7K
R3628 4.7K
R3631 4.7K
C3638 0.1 F
C3639 0.1 F
C3640 0.1 F
R3643 4.7K
R3644 4.7K
R3645 8.2K
W970
W969
UC_SCL
UC_SDA
C3637 0.1 F
FROM/TO INTERFACE_HDMI IC
VDD3
BUFFER Q3605 KTK5132E
BUFFER Q3606 KTK5132E
R3637 4.7K
R3639 4.7K
SW
I2C_CLKC
I2C_DATC
H_INT
DDVS
RXT_RST#
C3642 18P CH
X3601 11.0592MHz 100CT01101
C3643 18P CH
X2
X1
GND
MUTE_CTL
VIDEO_SEL
AUDIO_SEL
RX2_INT
AKM_SMUTE
HDMI MICON
IC3611
SST89E58RD2-40-C-TQJE(HD101)
H_SYNC
V_SYNC
PROGRAM
VCC
AKM_PD
RX1_RST
AKM_ACKS
RX2_RST
HPD_RST
CEC
P3.3/INT1-
RX1_INT
TXD
RXD
RESET
CSDA
CSCL
PSEN-
ALE/PROG-
EA-/VPP
P_SEL
AKM_DIF0
JG3605
R3648 33
R3647 10K
R3632 4.7K
R3652 4.7K
R3654 4.7K
R3653 4.7K
R3649 4.7K
C3647 0.1 F
C3646 0.1 F
W949
R3633 5.6K
LEVEL SHIFT Q3600 KTK5132E
R3634 100
C3656 100P CH
DDVS
RXT_RST#
I2SCLK_IND
I2SDATA_IND
I2SWS_IND
DAC_A-L
DAC_A-R
HPD_RST
FROM/TO STEREO
CP3602 (CP901)
A2001WV2-4P
4 HDMI_I2SSCK/MCKL
3 HDMI_I2SSDO
2 HDMI_I2SWS
1 GND
B3606 FCM1608KF-102T02
W868
W839
B3612 FCM1608KF-102T02
FROM/TO REGULATOR
RXT_RST#
HDMI+5V
GND
HPD_RST

CAUTION: DIGITAL TRANSISTOR



CAUTION: DIGITAL TRANSISTOR



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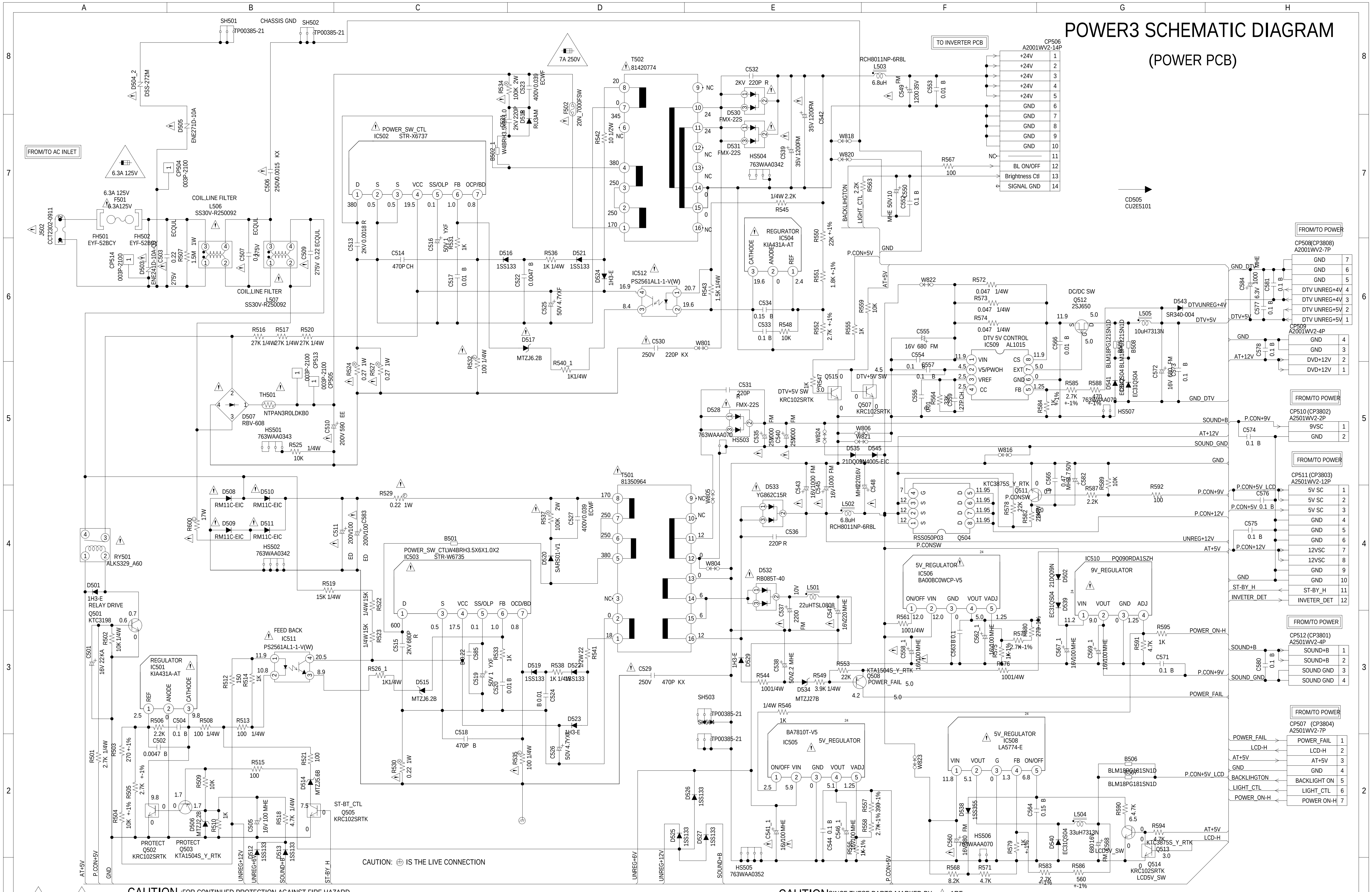
PCBDS0
CEF170

# POWER3 SCHEMATIC DIAGRAM

## (POWER PCB)



A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
SH501
TP00385-21
CHASSIS GND
SH502
TP00385-21
7A 250V
T502
81420774
D504_2
DSS-272M
D505
ENE271D-10A
FROM/TO AC INLET
6.3A 125V
CP504
003P-2100
C506
250V0.0015 KX
COIL,LINE FILTER
L506
SS30V-R250092
6.3A 125V
F501
6.3A125V
J502
CCT2302-0911
FH501
EYF-52BCY
FH502
EYF-52BCY
CP514
003P-2100
D503
ENE241D-10A-Q
C503
R507
1.5M 1W
C507
0.1 275V
C509
275V 0.22 ECQUL
COIL,LINE FILTER
L507
SS30V-R250092
POWER_SW_CTL
IC502 STR-X6737
D S S VCC SS/OLP FB OCP/BD
380 0.5 0.5 19.5 0.1 1.0 0.8
C513
2KV 0.0018 R
C514
470P CH
C516
50V 1 YXF
R531
1K
C517
0.01 B
D516
1SS133
R536
1K 1/4W
D521
1SS133
C522
0.0047 B
D524
1H3-E
IC512
PS2561AL1-1-V(W)
C525
50V 4.7 YXF
D517
MTZJ6.2B
R540_1
1K1/4W
R532
100 1/4W
C530
250V 220P KX
W801
R534
100K 2W
C523
400V 0.039 ECWF
D518
RU3AM
C521
2KV 220P
R533
W48RH3.5X6X1.0
B502_1
F502
20N_7000FSW
R542
10 1/2W
C532
2KV 220P R
D530
FMX-22S
D531
FMX-22S
HS504
763WAA0342
C539
35V 1200FM
C542
35V 1200FM
W818
W820
R545
1/4W 2.2K
REGURATOR
IC504
KIA431A-AT
CATHODE ANODE REF
C534
0.15 B
C533
0.1 B
R548
10K
R550
22K +-1%
R551
1.8K +-1%
R552
2.7K +-1%
R543
1.5K 1/4W
P.CON+5V
GND
TO INVERTER PCB
CP506
A2001WV2-14P
RCH8011NP-6R8L
L503
6.8uH
C549
1200 35V FM
C553
0.01 B
+24V 1
+24V 2
+24V 3
+24V 4
+24V 5
GND 6
GND 7
GND 8
GND 9
GND 10
NC 11
BL ON/OFF 12
Brightness Ctl 13
SIGNAL GND 14
R567
100
R563
2.2K
BACKLIHGTON
LIGHT_CTL
C552
MHE 50V 10
C550
0.1 B
CD505
CU2E5101
R516
27K 1/4W
R517
27K 1/4W
R520
27K 1/4W
CP513
003P-2100
CP505
003P-2100
R524
0.27 1W
R527
0.27 1W
TH501
NTPAN3R0LDKB0
D507
RBV-608
HS501
763WAA0343
C510
200V 590 EE
R525
10K 1/4W
W822
R572
0.047 1/4W
R573
0.047 1/4W
R574
0.047 1/4W
DC/DC SW
Q512
2SJ650
C555
16V 680 FM
C554
0.1 B
R557
0.1 B
DTV 5V CONTROL
IC509 AL1015
VIN CS V5/PWOH EXT VREF GND CC FB
C566
0.01 B
R585
2.7K +-1%
R588
470 +-1%
D541
EC31QS04
L505
10uH7313N
D543
SR340-004
DTVUNREG+4V
DTV+5V
C572
16V 680 FM
C573
0.1 B
GND_DTV
HS507
763WAA0705
R559
10K
R555
1K
R547
1K
Q515
DTV+5V SW
KRC102SRTK
Q507
KRC102SRTK
C531
220P
D528
FMX-22S
HS503
763WAA0705
C535
25V 1000 FM
C540
25V 1000 FM
W824
W806
W821
D535
21DQ09N
D545
1N4005-EIC
W816
T501
81350964
D508
RM11C-EIC
D510
RM11C-EIC
D509
RM11C-EIC
D511
RM11C-EIC
HS502
763WAA0342
R600
17W
R529
0.22 1W
C511
200V 100 ED
C583
200V 100 ED
R537
100K 2W
C527
400V 0.039 ECWF
D520
SARS01-V1
B501
POWER_SW_CTLW4BRH3.5X6X1.0X2
IC503 STR-W6735
D S VCC SS/OLP FB OCD/BD
600 0.5 17.5 0.1 1.0 0.8
R519
15K 1/4W
R522
1/4W 15K
R523
1/4W 15K
C515
2KV 680P R
FEED BACK
IC511
PS2561AL1-1-V(W)
R526_1
1K1/4W
D515
MTZJ6.2B
C519
50V 1 YXF
C520
0.01 B
D519
1SS133
R538
1K 1/4W
D522
1SS133
R541
1/2W 22
C518
470P B
C524
B 0.01
D523
1H3-E
C526
50V 4.7 YXF
R530
0.22 1W
R535
100 1/4W
C529
250V 470P KX
RY501
ALKS329_A60
D501
1H3-E
RELAY DRIVE
Q501
KTC3198
R502
10K 1/4W
C501
16V 22 KA
REGULATOR
IC501
KIA431A-AT
REF ANODE CATHODE
R506
2.2K
C504
0.1 B
R508
100 1/4W
R513
100 1/4W
C502
0.0047 B
R512
150
R514
1K
R515
100
R521
100
D514
MTZJ5.6B
ST-BT_CTL
Q505
KRC102SRTK
R501
2.7K 1/4W
R503
270 +-1%
R505
2.7K +-1%
R504
10K +-1%
R509
10K
D506
MTZJ2.2B
R510
1K
C505
16V 100 MHE
R518
4.7K 1/4W
PROTECT
Q502
KRC102SRTK
PROTECT
Q503
KTA1504S_Y_RTK
D512
1SS133
D513
1SS133
AT+5V
P.CON+5V
GND
UNREG+12V
UNREG+6V
SOUND+B
ST-BY_H
CAUTION: ⏚ IS THE LIVE CONNECTION
D533
YG862C15R
C543
16V 1000 FM
C545
16V 1000 FM
C548
MHE 16V 220
L502
6.8uH
RCH8011NP-6R8L
C536
220P R
W805
W804
KTC3875S_Y_RTK
Q511
P.CONSW
C565
MHE 50V 0.47
R589
10K
R587
2.2K
R592
100
R578
22K
R582
22K
RSS050P03
Q504
D532
RB085T-40
L501
22uHTSL0808
C537
2200 10V FM
C547
16V 220 MHE
5V_REGULATOR
IC506
BA00BC0WCP-V5
ON/OFF VIN GND VOUT VADJ
R561
100 1/4W
C563
0.1 B
C562_1
16V 100 MHE
R575
2.7K +-1%
R576
100 1/4W
D502
21DQ09N
D539
EC31QS04
IC510 PQ090RDA1SZH
9V_REGULATOR
VIN VOUT GND ADJ
C567_1
16V 100 MHE
C569_1
16V 100 MHE
R591
4.7K
R595
1K
C571
0.1 B
D529
1H3-E
C538
50V 2.2 MHE
R544
100 1/4W
D534
MTZJ27B
R549
3.9K 1/4W
R553
22K
Q508
KTA1504S_Y_RTK
POWER_FAIL
SH503
TP00385-21
SH504
TP00385-21
R546
1/4W 1K
BA7810T-V5
IC505 5V_REGULATOR
ON/OFF VIN GND VOUT VADJ
C541_1
16V 100 MHE
C544
0.1 B
C546_1
16V 100 MHE
R560
1K +-1%
R558
2.7K +-1%
R557
390 +-1%
HS505
763WAA0352
D525
1SS133
D527
1SS133
D526
1SS133
W823
5V_REGULATOR
IC508
LA5774-E
VIN VOUT G FB ON/OFF
D538
EC31QS04
C560
16V 680 FM
HS506
763WAA0705
C564
0.15 B
L504
33uH7313N
D540
EC31QS04
C568
6.3V 680 FM
R568
8.2K
R571
4.7K
R583
2.7K +-1%
R586
560 +-1%
R579
1K +-1%
LCD5V_SW
B506
BLM18PG181SN1D
R590
4.7K
R594
4.7K
Q514
KRC102SRTK
LCD5V_SW
KTC3875S_Y_RTK
Q513
FROM/TO POWER
CP508(CP3808)
A2001WV2-7P
GND 7
GND 6
GND 5
DTV UNREG+4V 4
DTV UNREG+4V 3
DTV UNREG+5V 2
DTV UNREG+5V 1
C584
6.3V 1000 MHE
C581
0.1 B
C577
0.1 B
CP509
A2001WV2-4P
GND 4
GND 3
DVD+12V 2
DVD+12V 1
C578
0.1 B
AT+12V
FROM/TO POWER
CP510(CP3802)
A2501WV2-2P
9VSC 1
GND 2
P.CON+9V
C574
0.1 B
SOUND+B
SOUND_GND
FROM/TO POWER
CP511(CP3803)
A2501WV2-12P
5V SC 1
5V SC 2
5V SC 3
GND 4
GND 5
GND 6
12VSC 7
12VSC 8
GND 9
GND 10
ST-BY_H 11
INVETER_DET 12
P.CON+5V_LCD
C576
0.1 B
C575
0.1 B
P.CON+12V
UNREG+12V
INVETER_DET
POWER_ON-H
FROM/TO POWER
CP512(CP3801)
A2501WV2-4P
SOUND+B 1
SOUND+B 2
SOUND GND 3
SOUND GND 4
C580
0.1 B
FROM/TO POWER
CP507 (CP3804)
A2501WV2-7P
POWER_FAIL 1
LCD-H 2
AT+5V 3
GND 4
BACKLIGHT ON 5
LIGHT_CTL 6
POWER ON-H 7
CAUTION: DIGITAL TRANSISTOR
PCB240
CEE171

**CAUTION** :FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE 6.3A 125V(F501)
AND 7A 250V(F502)

**ATTENTION** :POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE
N'UTILISER QUE DES FUSIBLE DE MEME TYPE 6.3A 125V(F501)
ET 7A 250V(F502)

**CAUTION** :F503 IS MANUFACTURED BY SKYGATE CO.,LTD, TYPE 20N.

6.3A 125V　7A 250V

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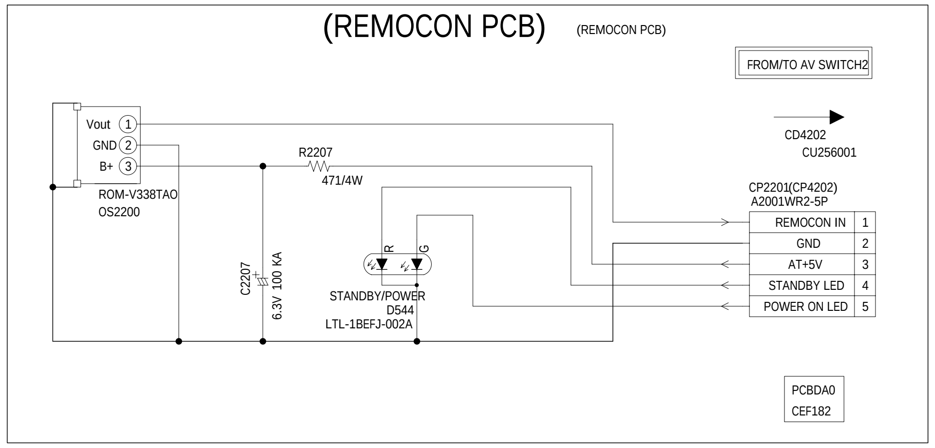
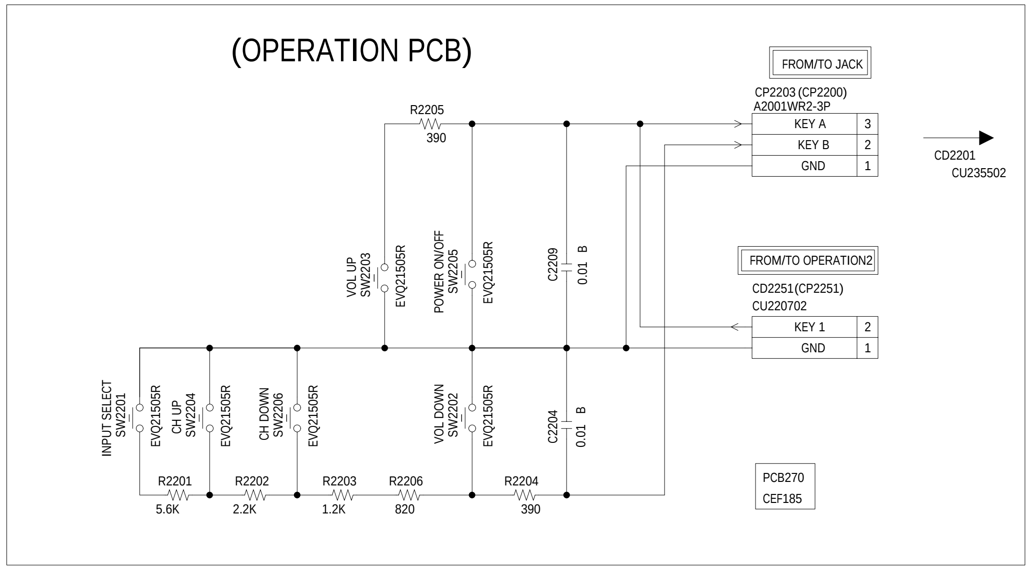
**CAUTION** :SINCE THESE PARTS MARKED BY ⚠ ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY。

**ATTENTION** :LES PIECES REPAREES PAR UN ⚠ ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES。

# OPERATION/REMOCON/FILTER/AC INLET SCHEMATIC DIAGRAM


(REMOCON PCB)
(REMOCON PCB)
FROM/TO AV SWITCH2
CD4202
CU256001
CP2201(CP4202)
A2001WR2-5P
REMOCON IN 1
GND 2
AT+5V 3
STANDBY LED 4
POWER ON LED 5
Vout 1
GND 2
B+ 3
ROM-V338TAO
OS2200
R2207
471/4W
C2207
6.3V 100 KA
R
G
STANDBY/POWER
D544
LTL-1BEFJ-002A
PCBDA0
CEF182


(OPERATION PCB)
FROM/TO JACK
CP2203 (CP2200)
A2001WR2-3P
KEY A 3
KEY B 2
GND 1
CD2201
CU235502
FROM/TO OPERATION2
CD2251(CP2251)
CU220702
KEY 1 2
GND 1
R2205
390
VOL UP
SW2203
EVQ21505R
POWER ON/OFF
SW2205
EVQ21505R
C2209
0.01 B
INPUT SELECT
SW2201
EVQ21505R
CH UP
SW2204
EVQ21505R
CH DOWN
SW2206
EVQ21505R
VOL DOWN
SW2202
EVQ21505R
C2204
0.01 B
R2201
5.6K
R2202
2.2K
R2203
1.2K
R2206
820
R2204
390
PCB270
CEF185

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

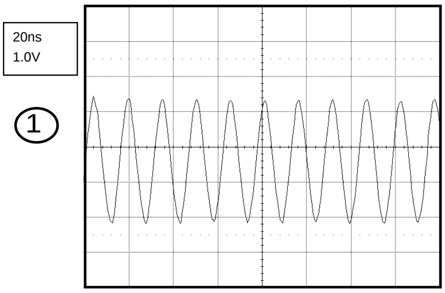
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE
CRITICAL FOR SAFETY,USE ONES
DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT
DANGEREUSES AN POINT DE VUE SECURITE
N'UTILISER QUE CELLS DECRITES
DANS LA NOMENCLATURE DES PIECES。

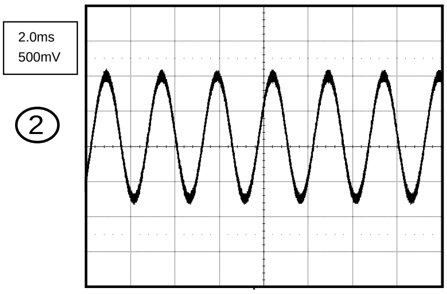
# WAVEFORMS

## ADC



①

## SOUND AMP/HEADPHON AMP



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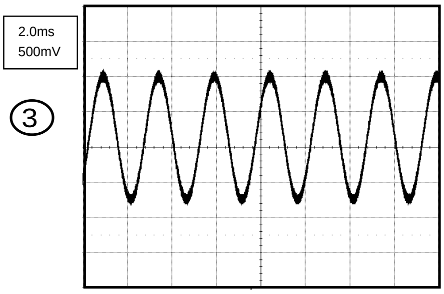

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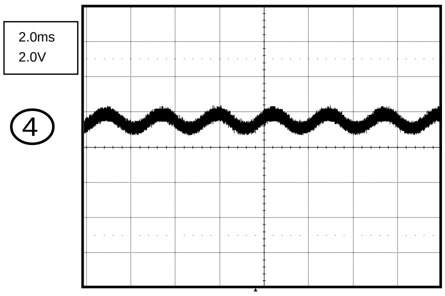

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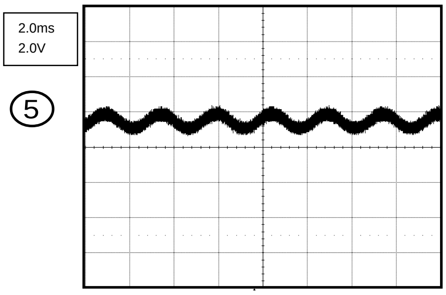

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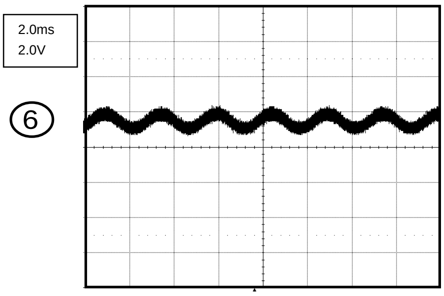

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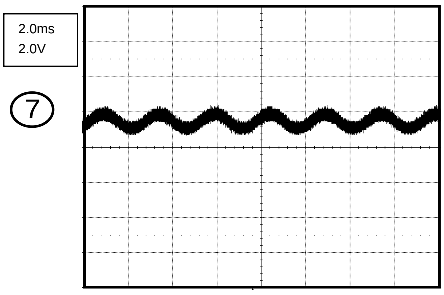
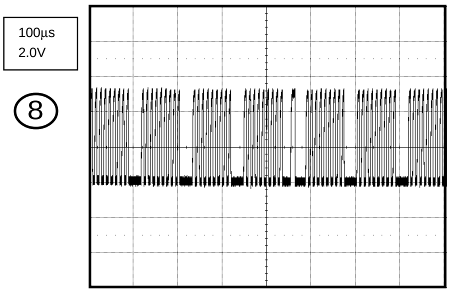
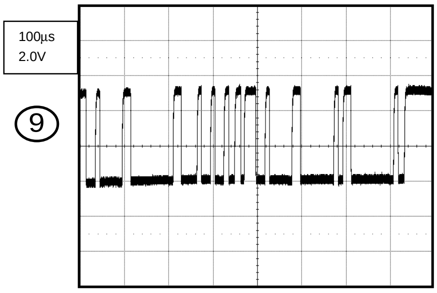


⑦

## AV SWITCH2



⑧



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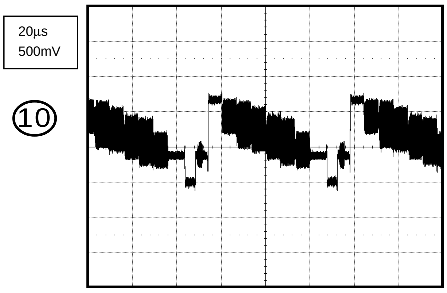
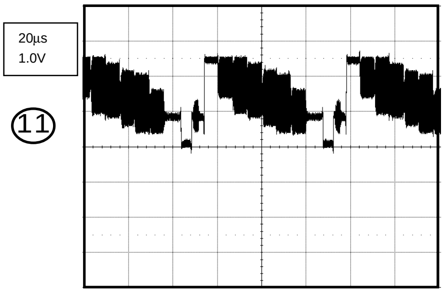


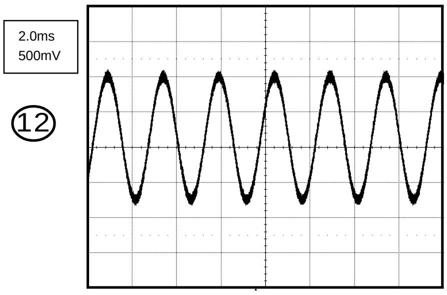
⑩

## TUNER



⑪

## STEREO



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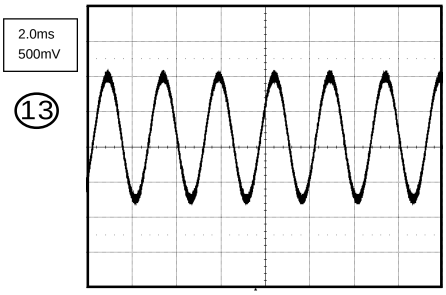
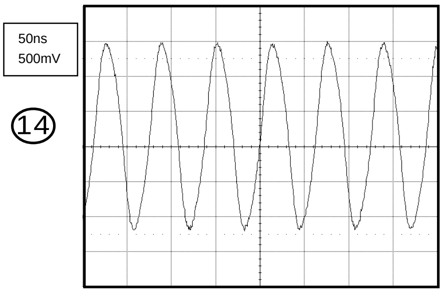


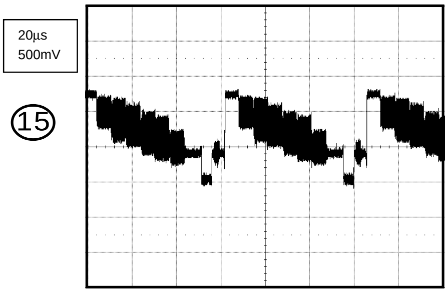
⑬

## MICON



⑭

## SCALER

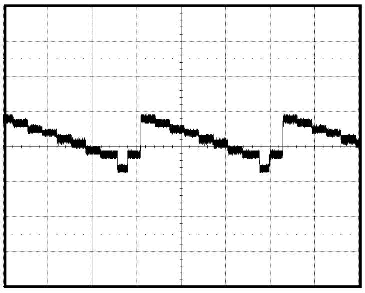


⑮

**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

# WAVEFORMS

⑯



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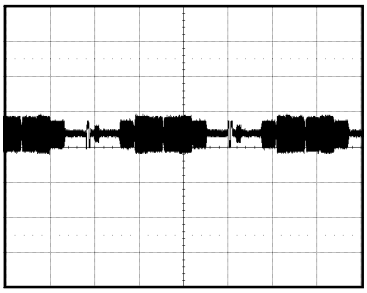

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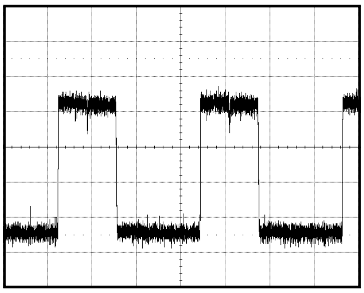

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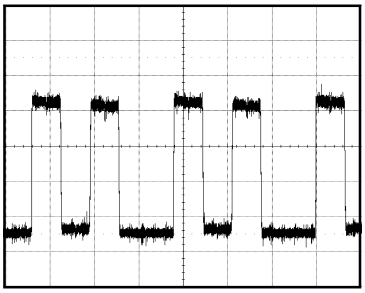

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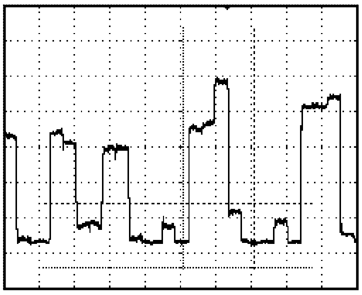

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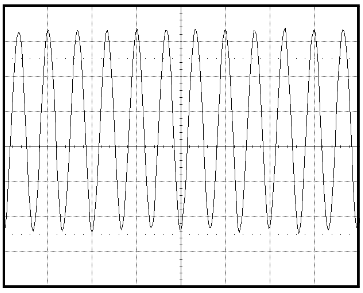

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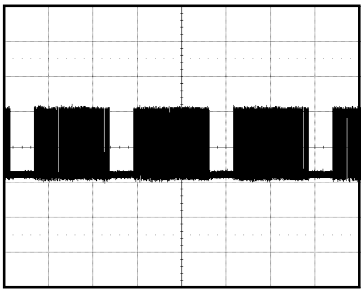
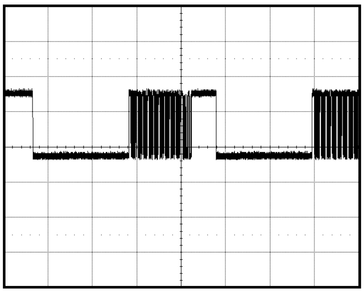


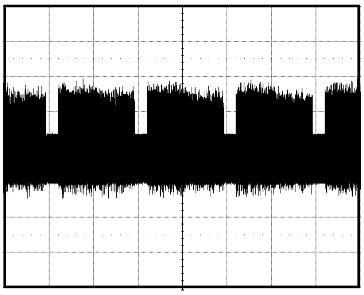
## ADC

㉓



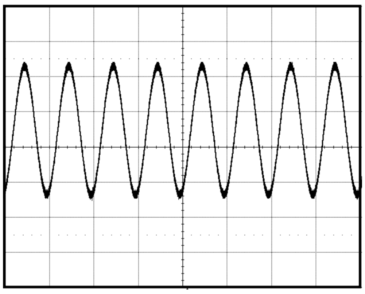
## LVDS

㉔



## JACK

㉕



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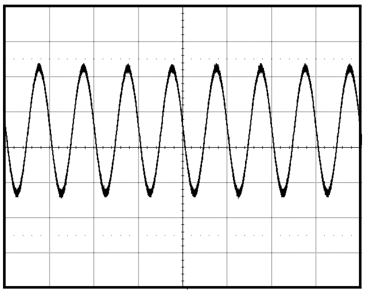
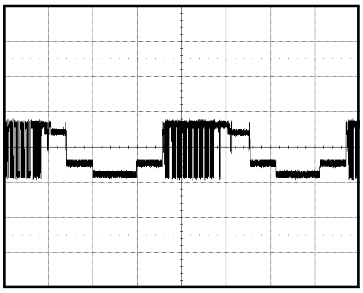


## ADC

㉗



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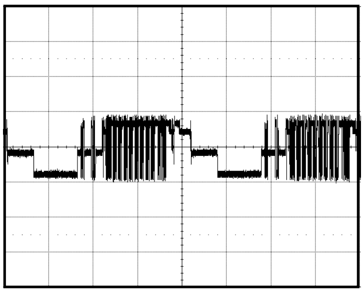

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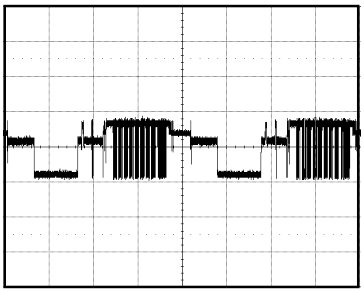
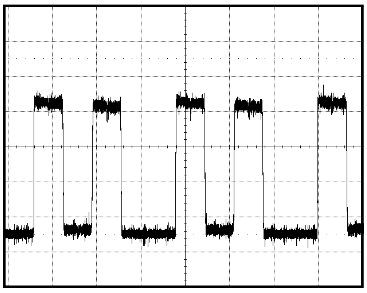


## INTERFACE_HDMI IC

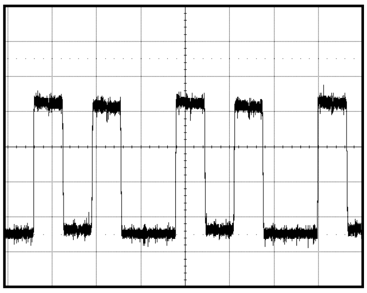
㉚



**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

# WAVEFORMS

㉛



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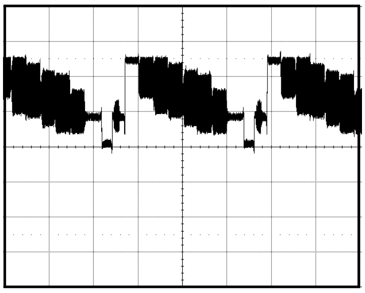
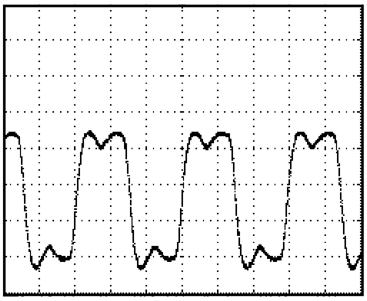
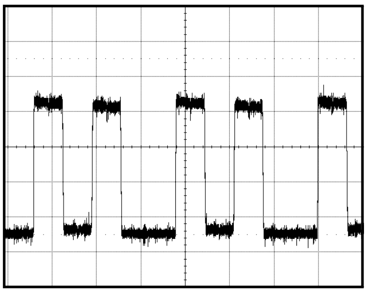


(53)



## ASIC

㉜



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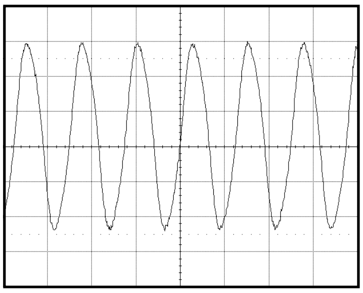
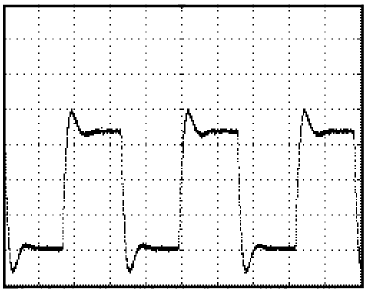


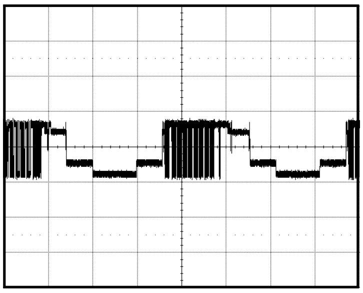
(54)



## AV OUT

## MEMORY

㉝



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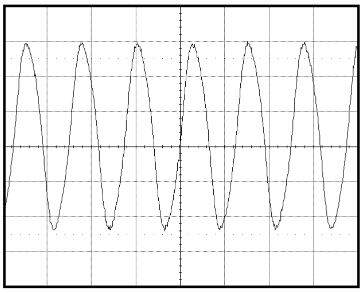
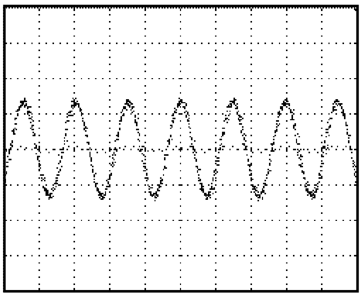


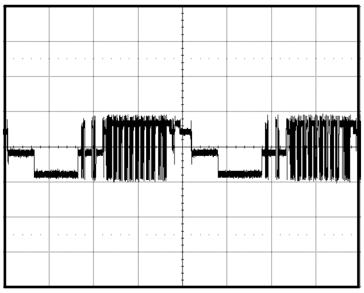
(55)



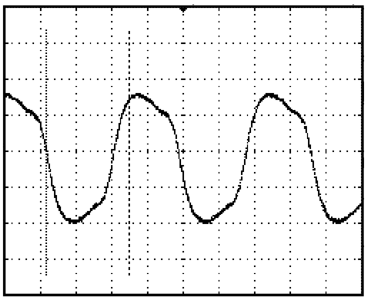
## MPEG/MICON/DSP

## AUDIO/VIDEO

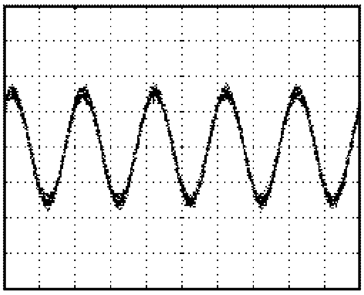
㉞



(51)



(56)



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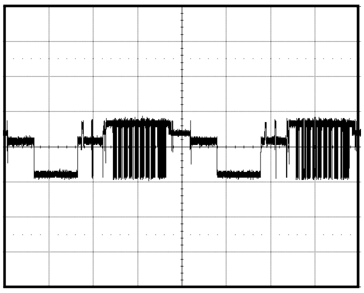

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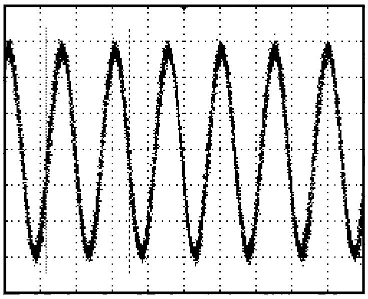

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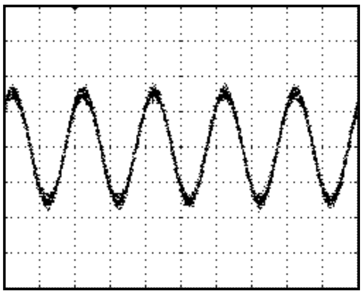
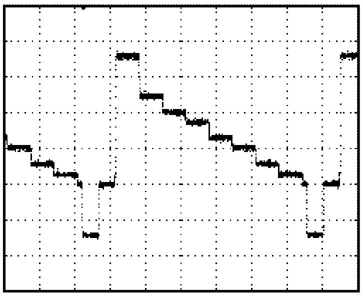


**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

# WAVEFORMS

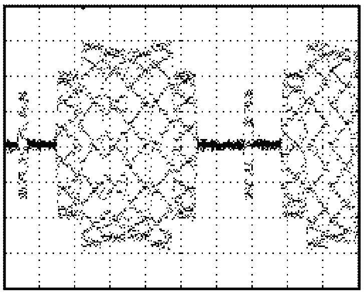
10µs
200mV

(59)



10µs
200mV

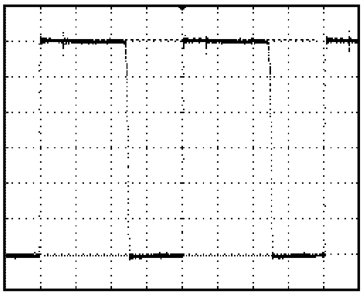
(60)



## REGULATOR 2

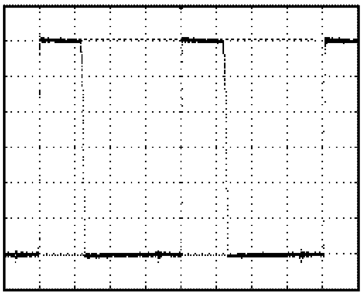
2µs
2.0V

(61)



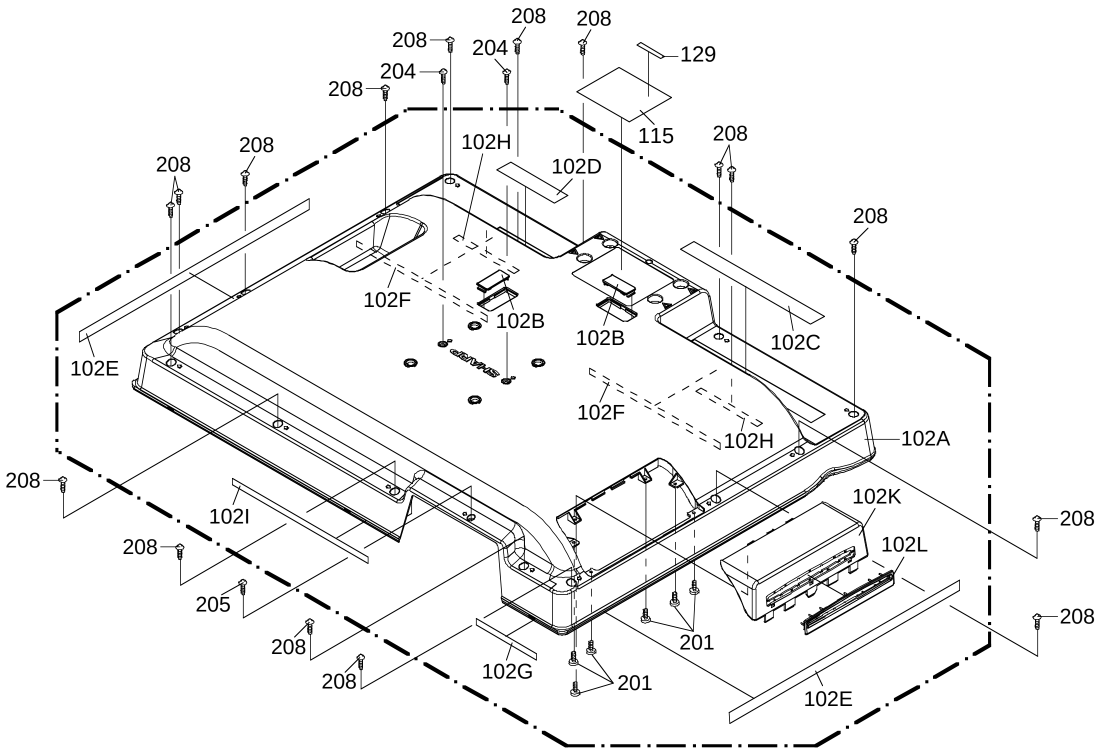
2µs
2.0V

(62)



**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

# MECHANICAL EXPLODED VIEW



208
208
208
204
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204
208
129
115
208
208
102H
102D
208
208
208
102F
102B
102B
102C
102E
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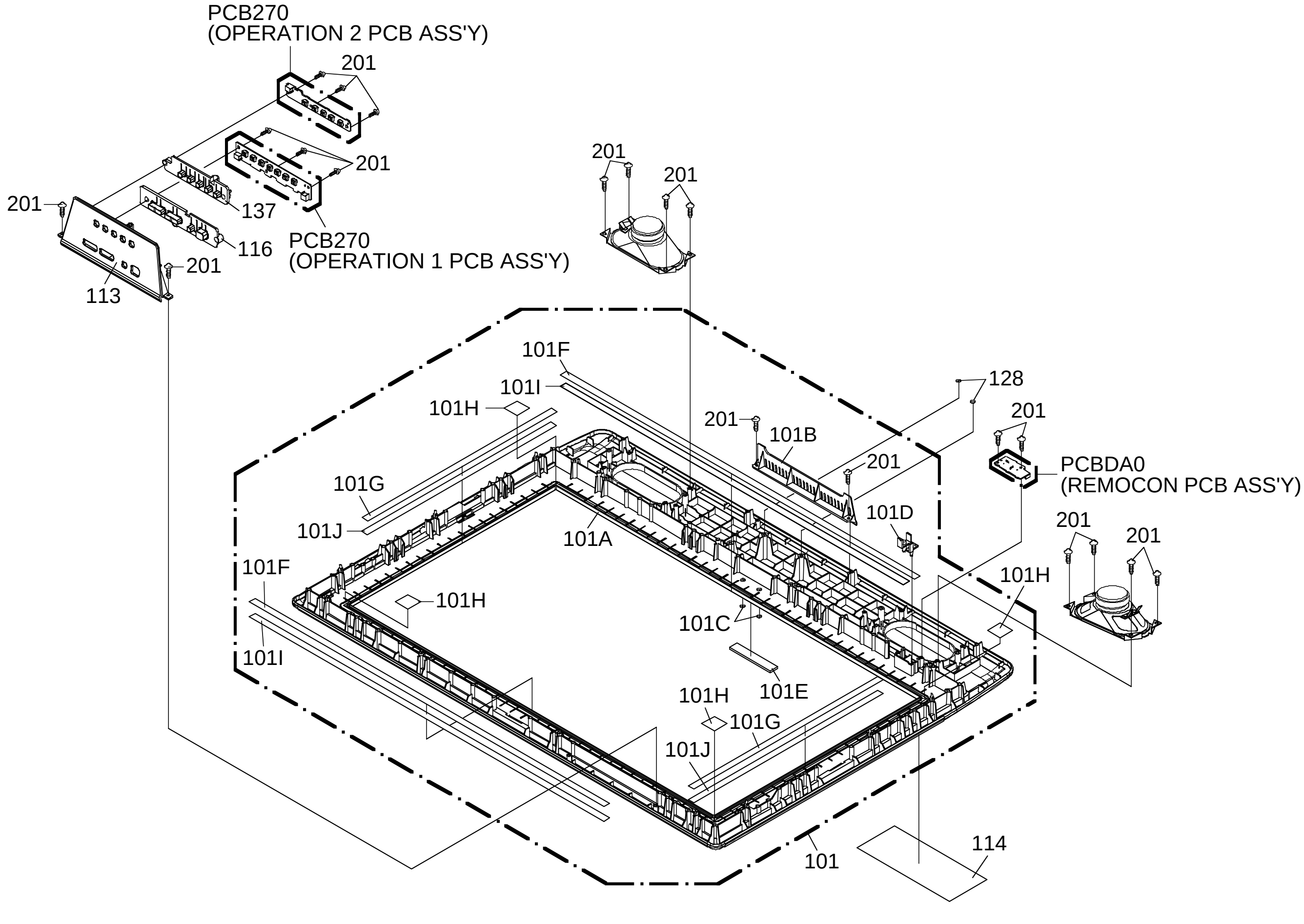
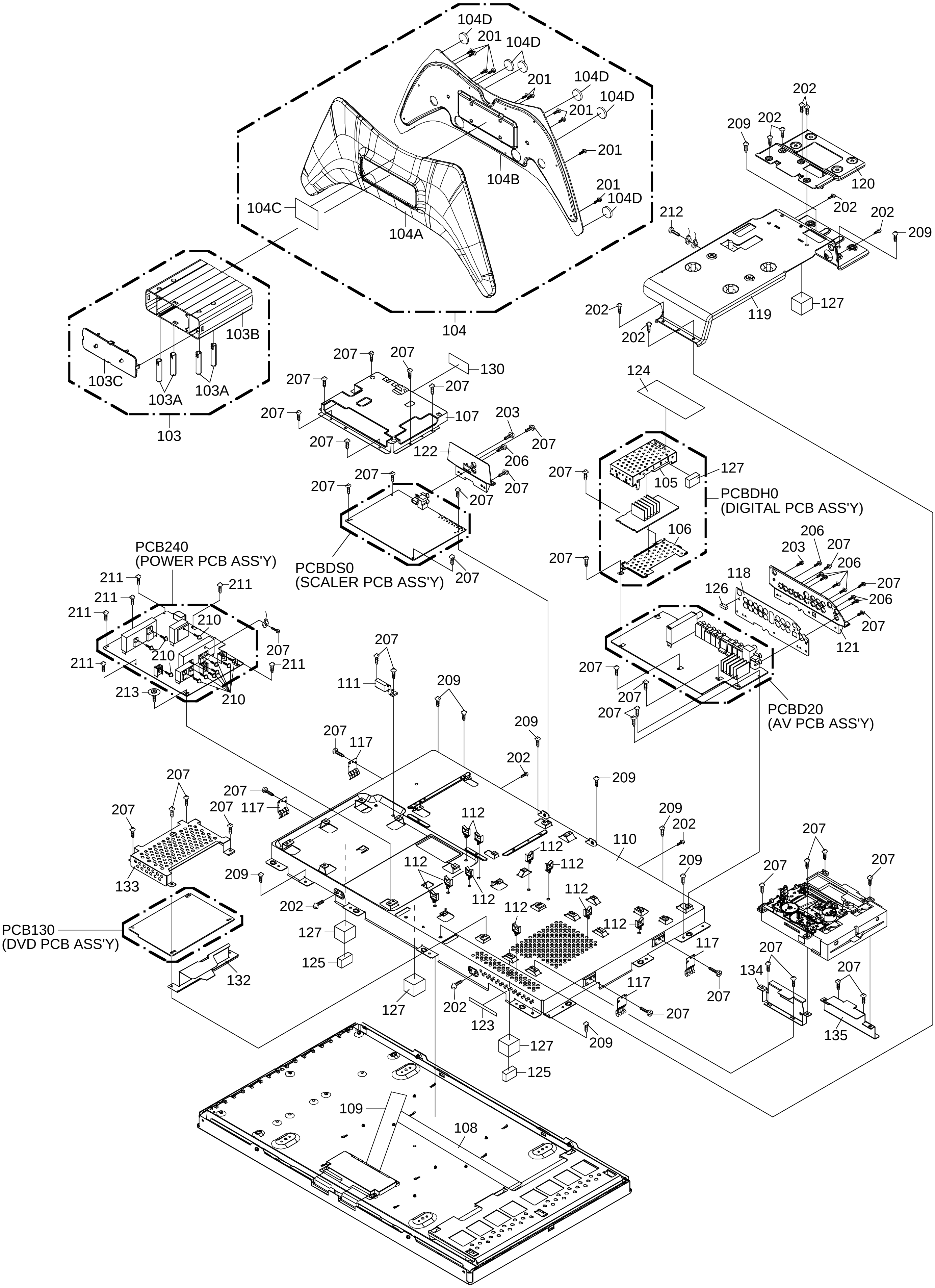
208
102G
201
102E
208



PCB270
(OPERATION 2 PCB ASS'Y)
201
201
201
137
116
PCB270
(OPERATION 1 PCB ASS'Y)
201
113
201
201
101F
101I
101H
128
201
201
101B
201
PCBDA0
(REMOCON PCB ASS'Y)
101G
101J
101A
101D
201
201
101F
101H
101H
101C
101I
101E
101H
101G
101J
101
114

# MECHANICAL EXPLODED VIEW


104D
201
104D
201
104D
104D
201
201
104B
201
104D
104C
104A
104
103B
103C
103A
103A
103
202
209
202
120
202
202
212
209
127
119
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202
207
207
130
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107
207
203
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122
206
207
207
207
207
PCBDS0
(SCALER PCB ASS'Y)
207
124
207
105
127
PCBDH0
(DIGITAL PCB ASS'Y)
106
207
PCB240
(POWER PCB ASS'Y)
211
211
211
211
210
210
207
211
211
213
210
206
203
207
206
118
126
207
206
207
121
207
207
207
PCBD20
(AV PCB ASS'Y)
207
111
209
209
207
117
202
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207
117
207
207
112
112
112
110
209
202
133
209
112
112
209
112
207
207
202
112
112
PCB130
(DVD PCB ASS'Y)
127
117
125
132
117
127
202
123
207
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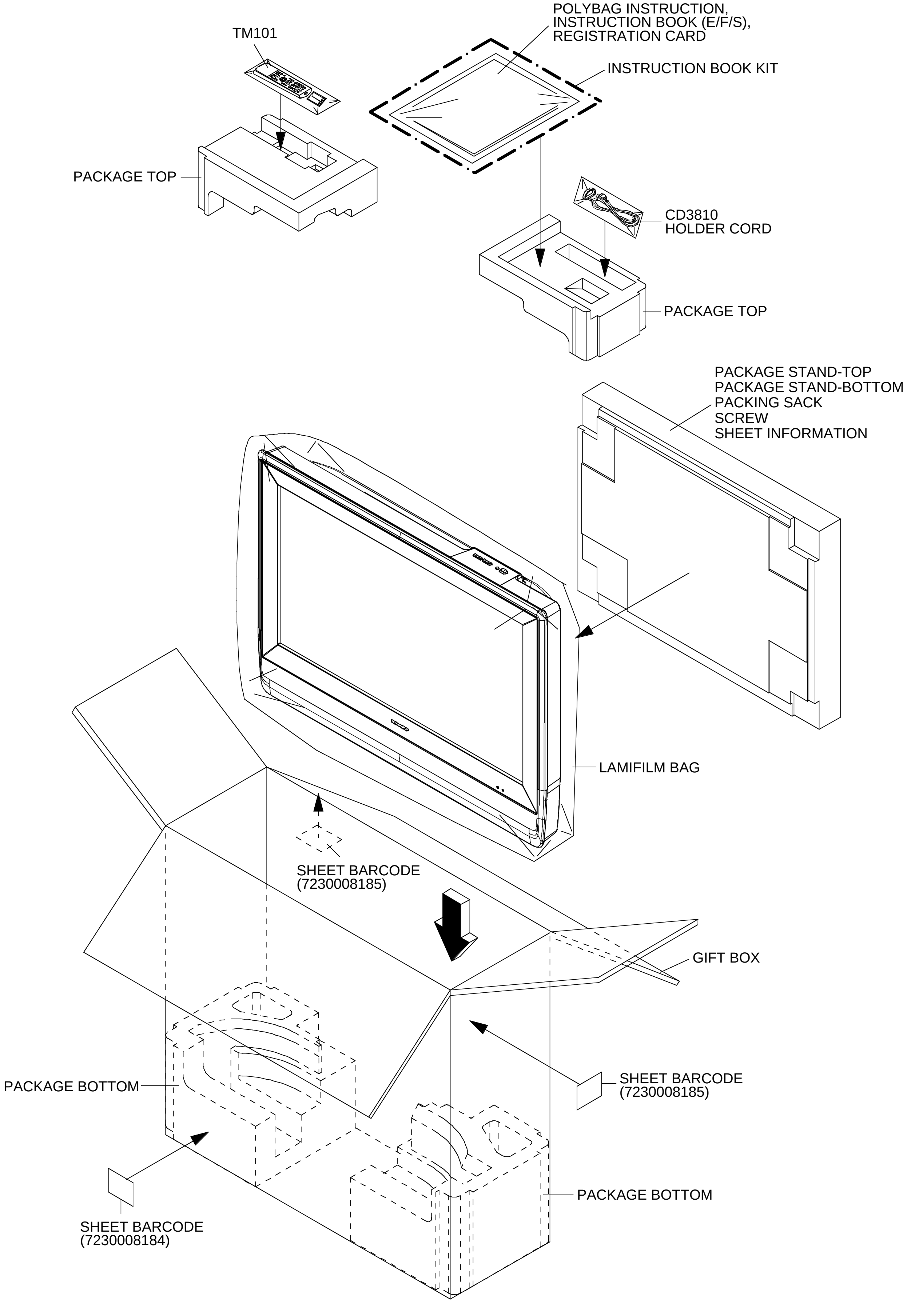
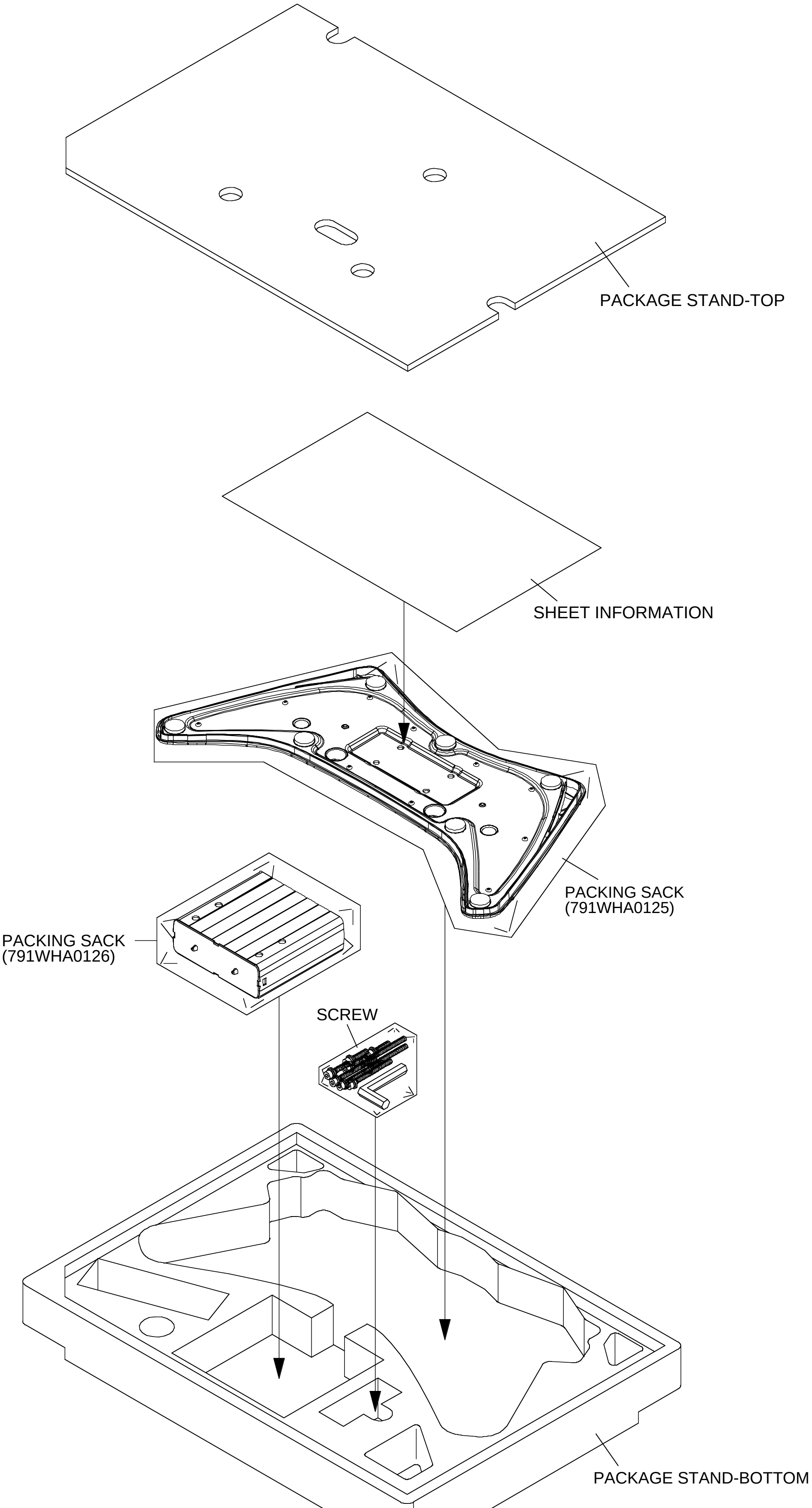
135
207
209
127
125
109
108

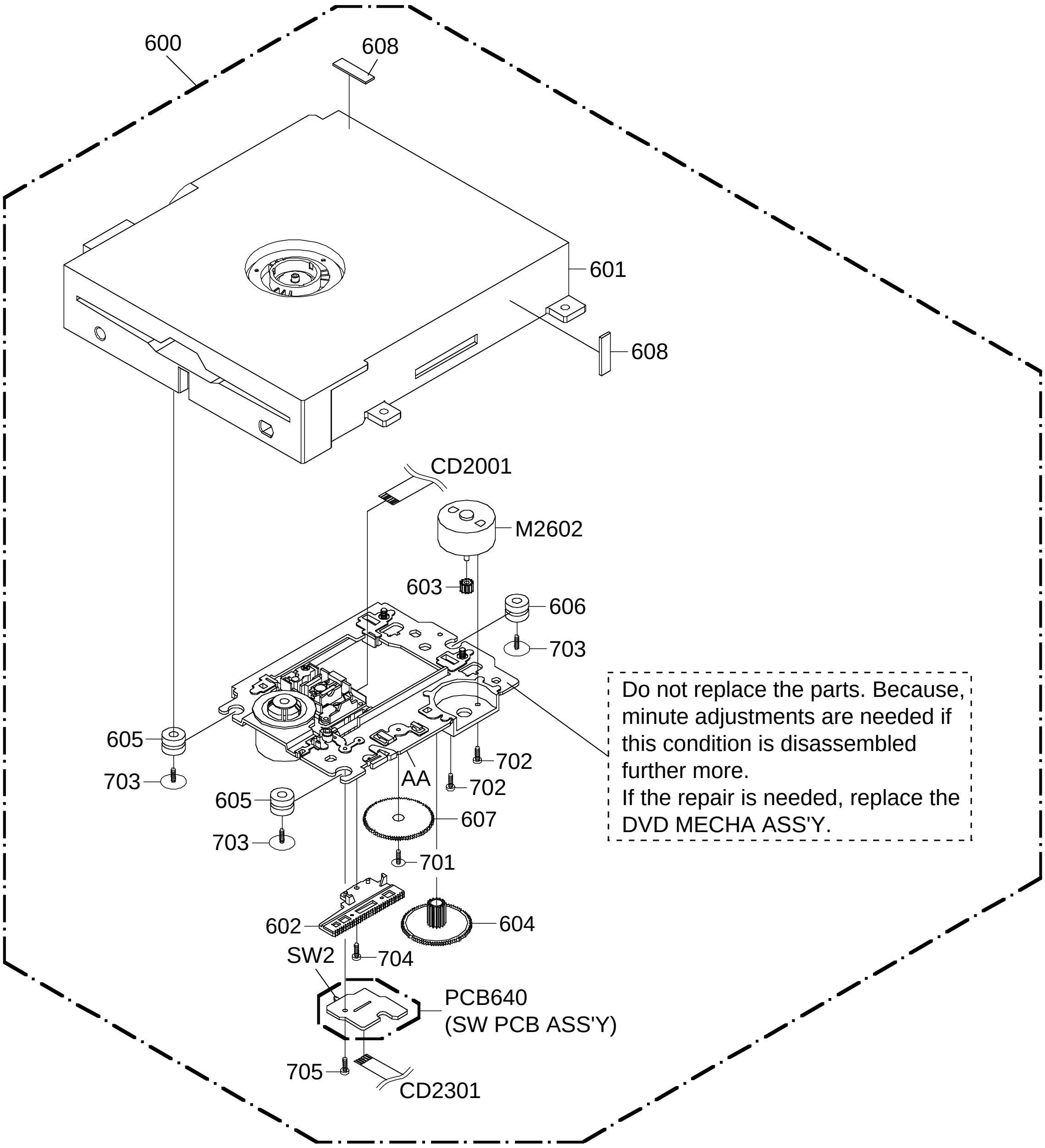
# MECHANICAL EXPLODED VIEW
# (PACKING DIAGRAM)


POLYBAG INSTRUCTION,
INSTRUCTION BOOK (E/F/S),
REGISTRATION CARD
TM101
INSTRUCTION BOOK KIT
PACKAGE TOP
CD3810
HOLDER CORD
PACKAGE TOP
PACKAGE STAND-TOP
PACKAGE STAND-BOTTOM
PACKING SACK
SCREW
SHEET INFORMATION
LAMIFILM BAG
SHEET BARCODE
(7230008185)
GIFT BOX
SHEET BARCODE
(7230008185)
PACKAGE BOTTOM
PACKAGE BOTTOM
SHEET BARCODE
(7230008184)

# MECHANICAL EXPLODED VIEW
# (PACKING DIAGRAM)


PACKAGE STAND-TOP
SHEET INFORMATION
PACKING SACK
(791WHA0125)
PACKING SACK
(791WHA0126)
SCREW
PACKAGE STAND-BOTTOM

# DVD DECK EXPLODED VIEW


600
608
601
608
CD2001
M2602
603
606
703
605
703
605
703
AA
702
702
607
701
602
604
SW2
704
PCB640
(SW PCB ASS'Y)
705
CD2301

Do not replace the parts. Because, minute adjustments are needed if this condition is disassembled further more.
If the repair is needed, replace the DVD MECHA ASS'Y.

| CLASS | PART NO. | PART NAME | MARK |
|---|---|---|---|
| GREASE | Y315061000 | G-555G | AA |

**NOTE:** Applying positions AA for the grease are displayed for this section.
Check if the correct grease is applied for each position.

# MECHANICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| 101 | 7A701A718A | FRONT CABI ASS'Y | |
| 101A | 701WPJ1461 | CABINET,FRONT | |
| 101B | 702WPB0109 | COVER,STAND | |
| 101C | 83SPN2000W | PUSH NUT | |
| 101D | 713WPA0393 | GLASS,LED | |
| 101E | 7235270018 | BADGE,BRAND | |
| 101F | 800WQ0A124 | FELT SHEET | 18x600xT1.0 |
| 101G | 800WQ0A125 | FELT SHEET | 18x310xT1.0 |
| 101H | 800WQ0A128 | FELT SHEET | 25x25xT0.5 |
| 101I | 800WQ0A126 | FELT SHEET | 18x600xT0.5 |
| 101J | 800WQ0A127 | FELT SHEET | 18x310xT0.5 |
| 102 | 7A7020086A | BACK,CABI ASS'Y | |
| 102A | 702WPB0112 | CABINET,BACK | |
| 102B | 706WPB0009 | COVER,CONNECTOR | |
| 102C | 7230008130 | SHEET,JACK-1 | |
| 102D | 7230008131 | SHEET,JACK-2 | |
| 102E | 800WQ0A049 | FELT,SHEET | |
| 102F | 800WQ0A110 | FELT SHEET | |
| 102G | 800WQ00095 | FELT,SHEET | |
| 102H | 800WQ00103 | FELT,SHEET | 9x250xT0.3 |
| 102I | 800WQ00112 | FELT SHEET | 9x390xT0.3 |
| 102J | 800WQ00105 | FELT SHEET | |
| 102K | 771WPB0071 | PANEL,SIDE | |
| 102L | 771WPB0081 | SLOT,DVD | |
| 103 | 7A7640004A | FRAME,STAND ASS'Y | |
| 103A | 701WPA1423 | HOLDER,STAND | |
| 103B | 761WEB0004 | FRAME,STAND | |
| 103C | 761WPA0436 | COVER,STAND FRAME | |
| 104 | 7A7040015A | STAND ASS'Y | |
| 104A | 704WPB0021 | STAND | |
| 104B | 761WSB0039 | ANGLE,STAND | |
| 104C | 7290000172 | SHEET,CAUTION | |
| 104D | 800WFA0063 | CUSHION,LEG | |
| 105 | 752WSA0555 | SHIELD,DIGITAL | |
| 106 | 752WSA0556 | DIGITAL SHIELD,COVER | |
| 107 | 752WSA0575 | SHIELD,SCALER | |
| 108 | 753WEA0030 | SHEET,CU | |
| 109 | 753WEA0035 | SHEET,CU | |
| 110 | 761WSA0374 | COVER,LCD | |
| 111 | 771WPA0343 | HOLDER,AC-INLET | |
| 112 | 899CH16000 | HOLDER,WIRE | |
| 113 | 711WPJ0078 | PLATE,BUTTON | |
| 114 | 7230008201 | POP LABEL | |
| 115 | 723527A012 | SHEET RATING | |
| 116 | 735WPB0336 | BUTTON,FRAME | |
| 117 | 744WUA0022 | SPRING,EARTH | |
| 118 | 752WSA0566 | SHIELD,JACK | |
| 119 | 761WSA0356 | ANGLE,BACK-1 | |
| 120 | 761WSA0357 | ANGLE,BACK-2 | |
| 121 | 771WPA0347 | PLATE,JACK-1 | |
| 122 | 771WPA0348 | PLATE,JACK-2 | |
| 123 | 7240001125 | SHEET PC | |
| 124 | 890MP2401A | TAPE | 50x35 |
| 125 | 8965TS202A | CUSHION 65TS20-20 | 20x15x12 |
| 126 | 8965TS0415 | CUSHION 65TS4-2 | 15x50x16 |
| 127 | 8965TS1017 | CUSHION 65TS10-10 | 17.5x20x14 |
| 128 | 800WB00004 | FIBER WASHER | 7x3.2xT0.5 |
| 129 | 7220001226 | SHEET SERIAL | |
| 130 | 890MP2401E | TAPE | 50x12 |
| 131 | 726000A073 | SHEET CAUTION | |
| 132 | 752WSA0595 | SHIELD FFC | |
| 133 | 752WSA0607 | SHIELD MPEG | |
| 134 | 761WSA0364 | ANGLE,DECK-L | |
| 135 | 761WSA0365 | ANGLE,DECK-R | |
| 136 | 8965TS1060 | CUSHION W10/H10/L60 | |
| 137 | 735WPB0337 | BUTTON,FRAME-DVD | |
| 138 | 7240001124 | SHEET PC | |
| 201 | 8110630A0U | SCREW TAP TITE(P) BRAZIER | 3x10 |
| 202 | 810A14080U | SCREW WASHER(A) | M4x8 |
| 203 | 810213080S | SCREW,PAN | M3x8 |
| 204 | 810223080S | SCREW,BIND | M3x8 |
| 205 | 8110630A0S | SCREW TAP TITE(P) BRAZIER | 3x10 |
| 206 | 810923080S | SCREW TAP TITE(B) BIND | 3x8 |
| 207 | 810923080U | SCREW TAP TITE(B) BIND | 3x8 |
| 208 | 8110230A4S | SCREW,TAP TITE(P) BIND | 3x14 |
| 209 | 8117540A2U | SCREW,TAPPING(B0) TRUSS | 4x12 |
| 210 | 8109I30A0U | SCREW TAP TITE(B) WH7 | 3x10 |
| 211 | 8109D30A0U | SCREW,TAP TITE(B) WH8 | 3x10 |
| 212 | 810A13080U | SCREW WASHER(A) | M3x8 |
| 213 | 8159130A0U | SCREW TAPPING(B) WASHER12 PAN | 3x10 |
| --- | 7230008184 | SHEET BARCODE | |
| --- | 7230008185 | SHEET BARCODE | |
| --- | 7290000175 | SHEET,INFORMATION | |
| --- | 774WPA0010 | HOLDER,CORD | |
| --- | 791WHA0125 | PACKING SACK | |
| --- | 791WHA0126 | PACKING SACK | |
| --- | 791WHA0130 | LAMIFILM BAG | |
| --- | 792WHA0660 | PACKAGE,STAND-TOP | |
| --- | 792WHA0661 | PACKAGE,STAND-BOTTOM | |
| --- | 792WHA0664 | PACKAGE,TOP | |
| --- | 792WHA0665 | PACKAGE,BOTTOM | |
| --- | 793WCDD166 | GIFT BOX | |
| --- | 890CDAIA24 | SCREW | |
| --- | A5X504G975 | INSTRUCTION BOOK KIT | |
| --- | J3Y00417A | REGISTRATION CARD(SHARP) | |
| --- | J5X50431A | INSTRUCTION BOOK(E/F/S) | |
| --- | JA4ND200 | POLYBAG INSTRUCTION(RED CAUTION) | |

# DVD DECK REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| ⚠ 600 | A5X002C650 | DVD MECHA ASS'Y | A5X002C650 |
| 601 | 92SBB0033A | LOADER SUB ASS'Y | DLM1D29-31 |
| 602 | 92AAA0017A | FEED RACK ASS'Y | |
| 603 | 92P100088A | GEAR,MOTOR | |
| 604 | 92P100117A | GEAR,MIDDLE | |
| 605 | 92P200017A | INSULATOR, F | |
| 606 | 92P200018A | INSULATOR, R | |
| 607 | 92P100116A | GEAR,FEED | |
| 608 | 800WFAA008 | CUSHION C | |
| 701 | 92P700007A | SCREW,GEAR FEED | |
| 702 | 814011723U | SCREW,PAN | M1.7x2.3 P3 |
| 703 | 816112080U | SEMS.TAP TITE(P) PAN W10 | 2x8 |
| 704 | 813381750U | SCREW,T-TITE(B)CAMERA PAN | M1.7x5.0 P3 |
| 705 | 811022080U | SCREW,TAP TITE(P) BIND | 2x8 |
| CD2001 | 122J4O1603 | CORD JUMPER | 127000-2933 |
| CD2301 | 122H062102 | CORD JUMPER | 2H062102 |
| ⚠ M2602 | 1515S98004 | MOTOR | BCZ3B05 |
| PCB640 | A5X002C640 | PCB ASS'Y | DED020A |
| SW2 | 0500101036 | PUSH SWITCH | ESE22MH22 |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | **DVD PCB ASS'Y** | | |
| | | ***  PCB  *** | | |
| PCB130 | A5X504G130 | DVD PCB ASS'Y | DMF066A | |
| | | ***  DIODES  *** | | |
| D2303 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D2304 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D3001 | DD7RB051L0 | DIODE,SCHOTTKY | RB051L-40_TE25 | |
| D3002 | DD7RB051L0 | DIODE,SCHOTTKY | RB051L-40_TE25 | |
| D3003 | DD7RB051L0 | DIODE,SCHOTTKY | RB051L-40_TE25 | |
| D4002 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D4003 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D4005 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D4008 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D8509 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D8510 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| | | ***  ICS  *** | | |
| ⚠IC2301 | I03FV65650 | IC | LA6565VR-TLM-E | |
| ⚠IC3001 | I07F097430 | IC | BA9743AFV-E2 | |
| ⚠IC3002 | I0GF91ZPH0 | IC | PQ070XZ01ZPH | |
| ⚠IC3003 | I1KF98D050 | IC | KIA78D05F | |
| IC4001 | ICQK068621 | IC | ZR36862PQCG-B | |
| IC4007 | ICMJ016017 | IC | SST39VF1601-70-4C-EKE | |
| IC4009 | IF9J0161A7 | IC | M12L16161A-7TG | |
| IC8502 | I17F017530 | IC | PCM1753DBQR | |
| | | ***  TRANSISTORS  *** | | |
| Q2301 | T67J1036K0 | TRANSISTOR,SILICON | 2SA1036KT146 | |
| Q2302 | T67J048TL0 | TRANSISTOR,SILICON | 2SA2048TL | |
| Q2303 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q2304 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q2305 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q3001 | TAAA01664Y | TRANSISTOR,SILICON | KTA1664-Y-RTF/P | |
| Q3001 | T77J011320 | TRANSISTOR,SILICON | 2SB1132T100(Q,R) | or |
| Q3002 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q3003 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q3004 | T67J1036K0 | TRANSISTOR,SILICON | 2SA1036KT146 | |
| Q3005 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q3006 | T67J1036K0 | TRANSISTOR,SILICON | 2SA1036KT146 | |
| ⚠Q3007 | TJ5M081090 | FET | TPC8109(T2LORION_Q) | |
| ⚠Q3008 | TJ5M081090 | FET | TPC8109(T2LORION_Q) | |
| | | ***  COILS  *** | | |
| B2301 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B2302 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B2304 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B2305 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B3001 | 024BC5121J | CORE,BEADS | BLM18PG121SN1D | |
| B4001 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4002 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4003 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4004 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4005 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4006 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4007 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4008 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4009 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4010 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4011 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4012 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4013 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4014 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4015 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4016 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4018 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B8503 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| L3001 | 021404101L | COIL | 1A 100 UH | |
| L3002 | 021404101L | COIL | 1A 100 UH | |
| L3003 | 02167F2R2J | COIL | 2.2   UH | |
| L3004 | 02167E220K | COIL | R7 22    UH | |
| L8502 | 02167F1R0K | COIL | 1     UH | |
| L8503 | 02167F1R0K | COIL | 1     UH | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** CONNECTORS *** | | |
| CP2301 | 069KYOT159 | CONNECTOR PCB SIDE | LD07T2-24ND-03 | |
| CP2302 | 069EV53030 | CONNECTOR PCB SIDE | 00_6232_005_006_800+ | |
| CP2303 | 069EV63030 | CONNECTOR PCB SIDE | 00_6232_006_006_800+ | |
| | | *** CRYSTAL & CERAMIC OSCILLATORS *** | | |
| X4001 | 100GT02720 | CRYSTAL | B27000C005 | |
| | | *** OTHERS *** | | |
| ⚠CD501 | 06CU244202 | CORD,CONNECTOR | CU244202 | |
| CD702 | 06CU263502 | CORD,CONNECTOR | CU263502 | |
| CD703 | 06CU292601 | CORD,CONNECTOR | CU292601 | |
| ⚠F3001 | 083LA05007 | FUSE | 1206FA5A-T | |
| SH8501 | 126R000038 | TERMINAL PIN | TP00370-21 | |
| | | **POWER PCB ASS'Y** | | |
| | | *** PCB *** | | |
| PCB240 | A5X504G240 | POWER PCB ASS'Y | CEF171A | |
| | | *** RESISTORS *** | | |
| R524 | R3X181R27J | R,METAL OXIDE | 0.27 OHM 1W | |
| R527 | R3X181R27J | R,METAL OXIDE | 0.27 OHM 1W | |
| ⚠R529 | R63881R22J | R,FUSE | 0.22 OHM 1W | |
| ⚠R530 | R3X181R22J | R,METAL OXIDE | 0.22 OHM 1W | |
| ⚠R532 | R65584101J | R,FUSE | 100 OHM 1/4W | |
| ⚠R534 | R3X18A104J | R,METAL OXIDE | 100K OHM 2W | |
| ⚠R535 | R65584101J | R,FUSE | 100 OHM 1/4W | |
| ⚠R537 | R3X18A104J | R,METAL OXIDE | 100K OHM 2W | |
| ⚠R600 | R5X2AE010J | R,CEMENT | 1R0J 1 OHM 7W | |
| | | *** CAPACITORS *** | | |
| C503 | P2122B224M | CMP | 0.22 UF 275V ECQUL | |
| ⚠C506 | CD39E0ME3M | CC | 0.0015UF 250V | |
| ⚠C507 | P2122B104M | CMP | 0.1 UF 275V ECQUL | |
| C509 | P2122B224M | CMP | 0.22 UF 275V ECQUL | |
| ⚠C510 | E71LFC591D | CE | 590 UF 200V | |
| ⚠C511 | E61DFC101D | CE | 100 UF 200V | |
| C513 | C0PLRR7G3K | CC | 0.0018 UF 2KV R | |
| C515 | C03L0R7U2K | CC | 680 PF 2KV R | |
| C515 | C0PLRR7U2K | CC | 680 PF 2KV R | or |
| C521 | C03L0R7H2K | CC | 220 PF 2KV R | |
| C523 | P411F4393J | CMPP | 0.039 UF 400V ECWF | |
| C527 | P411F4393J | CMPP | 0.039 UF 400V ECWF | |
| ⚠C529 | CD39B0MQ2K | CC | 470 PF 250V | |
| ⚠C530 | CD39B0MH2K | CC | 220 PF 250V | |
| ⚠C531 | C03L0R7H2K | CC | 220 PF 2KV R | |
| C532 | C03L0R7H2K | CC | 220 PF 2KV R | |
| ⚠C535 | E61FF3102D | CE | 1000 UF 25V | |
| C536 | C03L0R7H2K | CC | 220 PF 2KV R | |
| ⚠C537 | E61FF1222D | CE | 2200 UF 10V | |
| ⚠C539 | E61FF4122D | CE | 1200 UF 35V | |
| ⚠C540 | E61FF3102D | CE | 1000 UF 25V | |
| ⚠C542 | E61FF4122D | CE | 1200 UF 35V | |
| ⚠C543 | E61FF2102D | CE | 1000 UF 16V | |
| ⚠C545 | E61FF2102D | CE | 1000 UF 16V | |
| ⚠C548 | E5EZU2221M | CE | 220 UF 16V | |
| ⚠C549 | E61FF4122D | CE | 1200 UF 35V | |
| ⚠C583 | E61DFC101D | CE | 100 UF 200V | |
| | | *** DIODES *** | | |
| D501 | D4AT01H3E0 | DIODE,RECTIFIER | 1H3-E | |
| D501 | D28X0ERB20 | DIODE,RECTIFIER | 10ERB20-TA2B5 | or |
| D502 | D28T21DQN9 | DIODE,SCHOTTKY | 21DQ09N-TA2B1 | |
| D503 | D6CE24110A | DIODE,VARISTA | ENE241D-10A-Q6 | |
| ⚠D504 | DOU002720M | DIODE,VARISTA | DSS-272M-S00B | |
| ⚠D505 | D6E027110A | DIODE,VARISTA | ENE271D-10A | |
| D506 | D97U02R21B | DIODE,ZENER | MTZJ2.2B T-77 | |
| ⚠D507 | D2B0BV6080 | DIODE,BRIDGE | RBV-608 | |
| ⚠D508 | D2WTRM11C0 | DIODE,SILICON | RM11C-EIC | |
| ⚠D509 | D2WTRM11C0 | DIODE,SILICON | RM11C-EIC | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** DIODES *** | | |
| ⚠D510 | D2WTRM11C0 | DIODE,SILICON | RM11C-EIC | |
| ⚠D511 | D2WTRM11C0 | DIODE,SILICON | RM11C-EIC | |
| D512 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D513 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D514 | D97U05R61B | DIODE,ZENER | MTZJ5.6B T-77 | |
| D515 | D97U06R21B | DIODE,ZENER | MTZJ6.2B T-77 | |
| D516 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| ⚠D517 | D97U06R21B | DIODE,ZENER | MTZJ6.2B T-77 | |
| D518 | D2B0RU3AM0 | DIODE,SILICON | RU3AM | |
| D519 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D520 | D2BXARS010 | DIODE,SILICON | SARS01-V1 | |
| D521 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D522 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D523 | D4AT01H3E0 | DIODE,RECTIFIER | 1H3-E | |
| D523 | D28T0ERB20 | DIODE,RECTIFIER | 10ERB20-TA1B2 | or |
| D524 | D4AT01H3E0 | DIODE,RECTIFIER | 1H3-E | |
| D524 | D28T0ERB20 | DIODE,RECTIFIER | 10ERB20-TA1B2 | or |
| D525 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D526 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D527 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D528 | D2BAMX22S0 | DIODE,SCHOTTKY | FMX-22S | |
| D529 | D4AT01H3E0 | DIODE,RECTIFIER | 1H3-E | |
| D529 | D28T0ERB20 | DIODE,RECTIFIER | 10ERB20-TA1B2 | or |
| ⚠D530 | D2BAMX22S0 | DIODE,SCHOTTKY | FMX-22S | |
| ⚠D531 | D2BAMX22S0 | DIODE,SCHOTTKY | FMX-22S | |
| ⚠D532 | D27A85T400 | DIODE,SCHOTTKY | RB085T-40 | |
| ⚠D533 | D2CA2C15R0 | DIODE,SCHOTTKY BARRIER | YG862C15R | |
| D534 | D97U02701B | DIODE,ZENER | MTZJ27B T-77 | |
| D535 | D28T21DQN9 | DIODE,SCHOTTKY | 21DQ09N-TA2B1 | |
| D538 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| D539 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D540 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D541 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D542 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D543 | D2LKSR3400 | DIODE,SCHOTTKY | SR340-004 | |
| D543 | D2LKB340F0 | DIODE,SCHOTTKY | SB340FL-6737 | or |
| D545 | D2WXN40050 | DIODE,SILICON | 1N4005-EIC | |
| | | | | |
| ⚠IC511 | 000220002W | PHOTO COUPLER | PS2561AL1-1-V(W) | |
| ⚠IC512 | 000220002W | PHOTO COUPLER | PS2561AL1-1-V(W) | |
| | | *** ICS *** | | |
| ⚠IC501 | I1KJ9A431A | IC | KIA431A-AT | |
| IC502 | I0BT0X6730 | IC | STR-X6737 | |
| ⚠IC503 | I2BT0W6730 | IC | STR-W6735 | |
| ⚠IC504 | I1KJ9A431A | IC | KIA431A-AT | |
| ⚠IC505 | I07A078100 | IC | BA7810T-V5 | |
| IC506 | I07T0BC0W0 | IC | BA00BC0WCP-V5E2 | |
| ⚠IC508 | I03T057740 | IC | LA5774-E | |
| IC509 | I1LF010150 | IC | AL1015 | |
| ⚠IC510 | I0GA9090R0 | IC | PQ090RDA1SZH | |
| | | *** TRANSISTORS *** | | |
| Q501 | TCATC31980 | TRANSISTOR,SILICON | KTC3198-AT(Y,GR) | |
| Q502 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q503 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q504 | TJ7M50P030 | FET | RSS050P03_TB | |
| Q505 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q507 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q508 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q511 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q512 | T0300J6500 | FET | 2SJ650 | |
| Q513 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q514 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q515 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| | | *** COILS *** | | |
| B501 | 024HT03563 | CORE,BEADS | W4BRH3.5X6X1.0X2 | |
| B502 | 024HT03564 | CORE,BEADS | W4BRH3.5X6X1.0 | |
| B505 | 024BC5121J | CORE,BEADS | BLM18PG121SN1D | |
| B506 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B507 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B508 | 024BC5121J | CORE,BEADS | BLM18PG121SN1D | |
| | | | | |
| L501 | 02167E220K | COIL | R7 22 UH | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** COILS *** | | |
| L502 | 02186I6R8L | COIL | 6.8 UH | |
| L503 | 02186I6R8L | COIL | 6.8 UH | |
| L504 | 021W0G330M | COIL | 33 UH | |
| L505 | 021W0G100M | COIL | 10 UH | |
| ⚠L506 | 029X000144 | COIL,LINE FILTER | SS30V-R250092 | |
| ⚠L507 | 029X000144 | COIL,LINE FILTER | SS30V-R250092 | |
| | | *** TRANSFORMERS *** | | |
| ⚠T501 | 0481350964 | TRANSFORMER,SWITCHING | 81350964 | |
| ⚠T502 | 0481420774 | TRANSFORMER,SWITCHING | 81420774 | |
| | | *** CONNECTORS *** | | |
| CP504 | 069D01001A | CONNECTOR PCB SIDE | 003P-2100 | |
| CP505 | 069D01001A | CONNECTOR PCB SIDE | 003P-2100 | |
| CP506 | 069S2E0629 | CONNECTOR PCB SIDE | A2001WV2-14P | |
| CP507 | 069S170019 | CONNECTOR PCB SIDE | A2501WV2-7P | |
| CP508 | 069S270629 | CONNECTOR PCB SIDE | A2001WV2-7P | |
| CP509 | 069S240629 | CONNECTOR PCB SIDE | A2001WV2-4P | |
| CP510 | 069S120019 | CONNECTOR PCB SIDE | A2501WV2-2P | |
| CP511 | 069S1C0019 | CONNECTOR PCB SIDE | A2501WV2-12P | |
| CP512 | 069S140019 | CONNECTOR PCB SIDE | A2501WV2-4P | |
| CP513 | 069D01001A | CONNECTOR PCB SIDE | 003P-2100 | |
| CP514 | 069W01001A | CONNECTOR PCB SIDE | 003P-2100 | |
| | | *** FUSES *** | | |
| ⚠F501 | 081PC6R305 | FUSE | 51MS063L | |
| FH501 | 06710T0009 | HOLDER,FUSE | EYF-52BCY | |
| FH502 | 06710T0009 | HOLDER,FUSE | EYF-52BCY | |
| | | *** RELAYS *** | | |
| ⚠RY501 | 0560V50119 | RELAY | ALKS329 A60 | |
| ⚠RY501 | 0560V50118 | RELAY | ALKS329 | or |
| | | *** THERMISTER *** | | |
| ⚠TH501 | DSRFSP3R0L | THERMISTOR | NTPAN3R0LDKB0 | |
| | | *** OTHERS *** | | |
| CD507 | 06CD010701 | CORD,CONNECTOR | CD010701 | |
| CD508 | 06CD010701 | CORD,CONNECTOR | CD010701 | |
| EL2401 | 124116281A | EYE LET | XRY16X28BD | |
| EL2402 | 124120301A | EYE LET | XRY20X30BD | |
| ⚠F502 | 0835A07005 | MICRO FUSE | 20N_7000FSW | |
| J502 | 064Q1A0003 | JACK,AC | CCT2302-0911 | |
| SH501 | 126R000036 | TERMINAL PIN | TP00385-21 | |
| SH502 | 126R000036 | TERMINAL PIN | TP00385-21 | |
| SH503 | 126R000036 | TERMINAL PIN | TP00385-21 | |
| SH504 | 126R000036 | TERMINAL PIN | TP00385-21 | |
| | | **OPERATION PCB ASS'Y** | | |
| | | *** PCB *** | | |
| PCB270 | A5X504G270 | OPERATION PCB ASS'Y | CEF185A | |
| | | *** SWITCHES *** | | |
| SW2201 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2202 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2203 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2204 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2205 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2206 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| | | *** CONNECTORS *** | | |
| CP2203 | 069S230639 | CONNECTOR PCB SIDE | A2001WR2-3P | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** OTHERS *** | | |
| CD2251 | 06CU220702 | CORD,CONNECTOR | CU220702 | |
| | | **OPERATION 2 PCB ASS'Y** | | |
| | | *** PCB *** | | |
| PCB280 | A5X504G280 | OPERATION 2 PCB ASS'Y | DEF092A | |
| | | *** SWITCHES *** | | |
| SW2251 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2252 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2253 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2254 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| SW2255 | 0504101T34 | SWITCH,TACT | EVQ21505R | |
| | | *** CONNECTORS *** | | |
| CP2251 | 069S220639 | CONNECTOR PCB SIDE | A2001WR2-2P | |
| | | **AV PCB ASS'Y** | | |
| | | *** PCB *** | | |
| PCBD20 | A5X504GD20 | AV PCB ASS'Y | CMF090A | |
| | | *** CAPACITORS *** | | |
| C340 | E61FF3821D | CE | 820 UF 25V | |
| C342 | E61FF3821D | CE | 820 UF 25V | |
| C3801 | E61FF2102D | CE | 1000 UF 16V | |
| C3802 | E61FF2102D | CE | 1000 UF 16V | |
| C3803 | E61FF2102D | CE | 1000 UF 16V | |
| C3810 | E61FF2102D | CE | 1000 UF 16V | |
| C3825 | E61FF3821D | CE | 820 UF 25V | |
| C3826 | E61FF3821D | CE | 820 UF 25V | |
| | | *** DIODES *** | | |
| D302 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D303 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D304 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D305 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D901 | D97U05R61B | DIODE,ZENER | MTZJ5.6B T-77 | |
| D3801 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D3802 | D2LXSR2400 | DIODE,SCHOTTKY | SR240-F | |
| D3802 | D28T21DQN4 | DIODE,SCHOTTKY | 21DQ04N-TA2B1 | or |
| D3804 | D4AT01H3E0 | DIODE,RECTIFIER | 1H3-E | |
| D3804 | D28T0ERB20 | DIODE,RECTIFIER | 10ERB20-TA1B2 | or |
| D3805 | D4AT01H3E0 | DIODE,RECTIFIER | 1H3-E | |
| D3805 | D28T0ERB20 | DIODE,RECTIFIER | 10ERB20-TA1B2 | or |
| D3811 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3812 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D4202 | DE7RB8R22B | DIODE,ZENER | UDZS8.2B TE-17 | |
| D4203 | DE7RB8R22B | DIODE,ZENER | UDZS8.2B TE-17 | |
| D4206 | D97U08R21B | DIODE,ZENER | MTZJ8.2B T-77 | |
| D4207 | D97U08R21B | DIODE,ZENER | MTZJ8.2B T-77 | |
| D4208 | DE7RB8R22B | DIODE,ZENER | UDZS8.2B TE-17 | |
| D4209 | D1VT001330 | DIODE,SILICON | 1SS133T-77 | |
| D4210 | DE7RB8R22B | DIODE,ZENER | UDZS8.2B TE-17 | |
| | | *** ICS *** | | |
| ⚠IC301 | I1MFPA2020 | IC | TA2024-ASE | |
| IC904 | I19FF4440G | IC | MSP4440G-QA-C13-100 | |
| IC3801 | I1LF010100 | IC | AL1010 | |
| ⚠IC3804 | I0GA9XF010 | IC | PQ070XF01SZH | |
| IC3805 | I03D979950 | IC | LA7995M-TLM | |
| IC4201 | I01F05853B | IC | AN15853B-E1 | |
| IC4401 | I0QF025840 | IC | NJM2584AM(TE1) | |
| IC4405 | I5CJ031570 | IC | SN74LVC1G3157DCKR | |
| IC4406 | I0QJ045800 | IC | NJM4580M(TE1) | |
| IC5801 | I55J07W660 | IC | TC7W66FU(TE12L,F) | |
| | | *** TRANSISTORS *** | | |
| Q300 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q300 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** TRANSISTORS *** | | |
| Q301 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q301 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q302 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q302 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q901 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q901 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q902 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q902 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q3813 | TJ7M50P030 | FET | RSS050P03_TB | |
| Q4202 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4202 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4203 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4203 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4205 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4205 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4206 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4207 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4207 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4208 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q4208 | T27T030180 | FET | 2SK3018T106 | or |
| Q4209 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4209 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4210 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q4210 | T27T030180 | FET | 2SK3018T106 | or |
| Q4231 | TPAAC05002 | COMPOUND TRANSISTOR | KRA103SRTK | |
| Q4231 | TPYJC05001 | COMPOUND TRANSISTOR | DTA124EKAT146 | or |
| Q4233 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q4401 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q4401 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| Q4402 | TPAAB05001 | COMPOUND TRANSISTOR | KRA102SRTK | |
| Q4403 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q4404 | TNAAD05001 | COMPOUND TRANSISTOR | KRC104SRTK | |
| Q4404 | TNRAD05002 | COMPOUND TRANSISTOR | RT1N441C-T112-1 | or |
| Q4405 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4405 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4406 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4406 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4407 | TPAAA05001 | COMPOUND TRANSISTOR | KRA101SRTK | |
| Q4408 | TNAAC05002 | COMPOUND TRANSISTOR | KRC103SRTK | |
| Q4409 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q4409 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| Q4410 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q4410 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| Q5801 | TPAAA05001 | COMPOUND TRANSISTOR | KRA101SRTK | |
| Q5801 | TPRAA05002 | COMPOUND TRANSISTOR | RT1P431C-T112-1 | or |
| Q5802 | TNAAC05002 | COMPOUND TRANSISTOR | KRC103SRTK | |
| Q5802 | TNRAC05003 | COMPOUND TRANSISTOR | RT1N241C-T112-1 | or |
| Q5803 | T82A03841Q | TRANSISTOR,SILICON | 2SC3841-T1B_T63 | |
| Q5804 | T82A03841Q | TRANSISTOR,SILICON | 2SC3841-T1B_T63 | |
| Q5805 | T82A03841Q | TRANSISTOR,SILICON | 2SC3841-T1B_T63 | |
| | | *** COILS *** | | |
| B901 | 024BC5121J | CORE,BEADS | BLM18PG121SN1D | |
| B902 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B902 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B903 | 024BC5121J | CORE,BEADS | BLM18PG121SN1D | |
| B904 | 024HC51023 | CORE,BEADS | FCM1608KF-102T02 | |
| B904 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D | or |
| B906 | 024HC51023 | CORE,BEADS | FCM1608KF-102T02 | |
| B906 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D | or |
| B3801 | 024HT03553 | CORE,BEADS | W5RH3.5X5X1.0 | |
| B4202 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4202 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4203 | 024HT03553 | CORE,BEADS | W5RH3.5X5X1.0 | |
| B4214 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4214 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4215 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4215 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4216 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4216 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4217 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4217 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4218 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4218 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4219 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4219 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4220 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** COILS *** | | |
| B4220 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4221 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4221 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B4222 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B4222 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B5801 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B5802 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B5803 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| L300 | 021W0G100M | COIL | 10 UH | |
| L301 | 021W0G100M | COIL | 10 UH | |
| L302 | 021W0G100M | COIL | 10 UH | |
| L303 | 021W0G100M | COIL | 10 UH | |
| L901 | 02167F100J | COIL | 10 UH | |
| L903 | 02167F100J | COIL | 10 UH | |
| L904 | 02167F100J | COIL | 10 UH | |
| L3801 | 02167E220K | COIL | R7 22 UH | |
| L3802 | 02167E220K | COIL | R7 22 UH | |
| L3803 | 02167E220K | COIL | R7 22 UH | |
| L3804 | 02167E220K | COIL | R7 22 UH | |
| L3806 | 021404150M | COIL | 50A 15 UH | |
| L3807 | 02167E100K | COIL | R6-1 10 UH | |
| L3809 | 02186I6R8L | COIL | 6.8 UH | |
| L3810 | 02167E100K | COIL | R6-1 10 UH | |
| L4201 | 02167F101J | COIL | 100 UH | |
| L4202 | 02167F470J | COIL | 47 UH | |
| L4203 | 02167F470J | COIL | 47 UH | |
| L4206 | 02167F470J | COIL | 47 UH | |
| L4207 | 02167F470J | COIL | 47 UH | |
| L4212 | 021LA6220J | COIL | 22 UH | |
| L4213 | 021LA6220J | COIL | 22 UH | |
| L4214 | 021LA6220J | COIL | 22 UH | |
| L4215 | 021LA6220J | COIL | 22 UH | |
| L4218 | 021LA6220J | COIL | 22 UH | |
| L4219 | 021LA6220J | COIL | 22 UH | |
| L4401 | 02167F221J | COIL | 220 UH | |
| L5801 | 02167F220J | COIL | 22 UH | |
| L5802 | 021673220K | COIL | 22 UH | |
| L5803 | 02167F101J | COIL | 100 UH | |
| L5804 | 021LA6220J | COIL | 22 UH | |
| | | *** JACKS *** | | |
| J4201 | 060K411041 | RCA JACK | AV2-13P2-07H | |
| J4202 | 060K401126 | RCA JACK | AVG-2-13 | |
| J4204 | 060K431026 | RCA JACK | AV2-67A03-01 | |
| J4205 | 063E000082 | JACK PLATE | SAV-12CP-01Z5 | |
| J4211 | 060K401128 | RCA JACK | AV3-67A02-01H | |
| | | *** CONNECTORS *** | | |
| CP301 | 069S130419 | CONNECTOR PCB SIDE | A2502WV2-3P | |
| CP303 | 069S120419 | CONNECTOR PCB SIDE | A2502WV2-2P | |
| CP901 | 069S240629 | CONNECTOR PCB SIDE | A2001WV2-4P | |
| CP3801 | 069S140019 | CONNECTOR PCB SIDE | A2501WV2-4P | |
| CP3802 | 069S120019 | CONNECTOR PCB SIDE | A2501WV2-2P | |
| CP3803 | 069S1C0019 | CONNECTOR PCB SIDE | A2501WV2-12P | |
| CP3804 | 069S170019 | CONNECTOR PCB SIDE | A2501WV2-7P | |
| CP3807 | 069S2B0629 | CONNECTOR PCB SIDE | A2001WV2-11P | |
| CP3808 | 069S270629 | CONNECTOR PCB SIDE | A2001WV2-7P | |
| CP4202 | 069S250629 | CONNECTOR PCB SIDE | A2001WV2-5P | |
| CP4203 | 069EVT3030 | CONNECTOR PCB SIDE | 00_6232_029_006_800+ | |
| CP4204 | 069EVU3030 | CONNECTOR PCB SIDE | 00_6232_030_006_800+ | |
| CP4401 | 069S290629 | CONNECTOR PCB SIDE | A2001WV2-9P | |
| CP5801 | 06972KM020 | CONNECTOR PCB SIDE | TKC-W20P-U1 | |
| CP5802 | 06972KM020 | CONNECTOR PCB SIDE | TKC-W20P-U1 | |
| | | *** CRYSTAL & CERAMIC OSCILLATORS *** | | |
| X901 | 100CT01804 | CRYSTAL | HC-49/U-S | |
| | | *** TUNER *** | | |
| ⚠TU5801 | 0164500006 | DIGITAL TUNER | TUMUDTR-V110V | |
| | | *** OTHERS *** | | |
| SH4201 | 126R000038 | TERMINAL PIN | TP00370-21 | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** OTHERS *** | | |
| SH4202 | 126R000038 | TERMINAL PIN | TP00370-21 | |
| SH4203 | 126R000038 | TERMINAL PIN | TP00370-21 | |
| SH4204 | 126R000038 | TERMINAL PIN | TP00370-21 | |
| SH4205 | 126R000038 | TERMINAL PIN | TP00370-21 | |
| | | **REMOCON PCB ASS'Y** | | |
| | | *** PCB *** | | |
| PCBDA0 | A5X504GDA0 | REMOCON PCB ASS'Y | CEF182A | |
| | | *** DIODES *** | | |
| D544 | 0021E9Q010 | LED | LTL-1BEFJ-002A | |
| | | *** CONNECTORS *** | | |
| CP2201 | 069S250639 | CONNECTOR PCB SIDE | A2001WR2-5P | |
| | | *** OTHERS *** | | |
| OS2200 | 077A033001 | REMOTE RECEIVER | ROM-V338TAO | |
| | | **DIGITAL PCB ASS'Y** | | |
| | | *** PCB *** | | |
| PCBDH0 | A5X504GDH0 | DIGITAL PCB ASS'Y | CEF169A | |
| | | *** DIODES *** | | |
| D3402 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3403 | D28R11FS20 | DIODE | EC11FS2-TE12L | |
| D3404 | D28R11FS20 | DIODE | EC11FS2-TE12L | |
| D3405 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3406 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3407 | DD7R20S300 | DIODE,SCHOTTKY BARRIER | RB520S-30-TE61 | |
| D3408 | D27RX301L0 | DIODE,SCHOTTKY | RSX301L-30TE25 | |
| | | *** ICS *** | | |
| IC2401 | IFNME240H0 | IC | X240H(215H48AGA21HG) | |
| IC2402 | ICLJ022ET5 | IC | HY5DU561622ETP-D43 | |
| IC2403 | ICLJ022ET5 | IC | HY5DU561622ETP-D43 | |
| IC2404 | I57F04L640 | IC | BR24L64F-WE2 | |
| IC2405 | I97F052290 | IC | BD5229G-TR | |
| IC2406 | ICLF0281A0 | IC | HY27US08281A-TPCB | |
| IC3401 | I1LF010420 | IC | AL1042 | |
| IC3402 | I07F0C0WF0 | IC | BA00BC0WFP-E2 | |
| IC3403 | I07F078200 | IC | BD7820FP-E2 | |
| IC3404 | I07F00HFP0 | IC | BA7810HFP-TR | |
| | | *** TRANSISTORS *** | | |
| Q2401 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q2403 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q2404 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q2406 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q2407 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q3403 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q3403 | T8RA039280 | TRANSISTOR,SILICON | 2SC3928A-T112-1R | or |
| Q3404 | TNAAC05002 | COMPOUND TRANSISTOR | KRC103SRTK | |
| Q3404 | TNRAC05003 | COMPOUND TRANSISTOR | RT1N241C-T112-1 | or |
| ⚠Q3405 | TJYASP8K30 | FET | SP8K3 TB | |
| Q3406 | TNAAC05002 | COMPOUND TRANSISTOR | KRC103SRTK | |
| Q3406 | TNRAC05003 | COMPOUND TRANSISTOR | RT1N241C-T112-1 | or |
| Q3407 | TPAAA05001 | COMPOUND TRANSISTOR | KRA101SRTK | |
| Q3407 | TPRAA05002 | COMPOUND TRANSISTOR | RT1P431C-T112-1 | or |
| | | *** COILS *** | | |
| B2401 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | |
| B2402 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | |
| B2403 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | |
| B2404 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | |
| B2405 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | |
| B2406 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | |
| B2407 | 024AC1601G | CORE,BEADS | BLM31PG601SN1L | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| | | *** COILS *** | |
| B2408 | 024AC1601G | CORE,BEADS | BLM31PG601SN1L |
| B2409 | 024AC1601G | CORE,BEADS | BLM31PG601SN1L |
| B2410 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2411 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2412 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2413 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2414 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2415 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2416 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2417 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2418 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2419 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2420 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| B2421 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2422 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2423 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2424 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2425 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2426 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B2427 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D |
| B3401 | 024AC5330J | CORE,BEADS | BLM18PG330SN1D |
| B3402 | 024AC1391G | CORE,BEADS | BLM31PG391SN1L |
| B3406 | 024AC1601G | CORE,BEADS | BLM31PG601SN1L |
| B3407 | 024AC1601G | CORE,BEADS | BLM31PG601SN1L |
| B3408 | 024AC1601G | CORE,BEADS | BLM31PG601SN1L |
| B3410 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D |
| L2401 | 0216SD1R0J | COIL | 1 UH |
| L2411 | 0216SDR47J | COIL | 0.47 UH |
| L2412 | 0216SDR47J | COIL | 0.47 UH |
| L2413 | 0216SDR47J | COIL | 0.47 UH |
| L2414 | 0216SDR47J | COIL | 0.47 UH |
| L3401 | 0211M44R7M | COIL | 4.7 UH |
| | | *** CONNECTORS *** | |
| CP2403 | 06972KT059 | CONNECTOR PCB SIDE | 125607220W3 |
| CP2404 | 06972KT059 | CONNECTOR PCB SIDE | 125607220W3 |
| CP2405 | 069AAA1009 | CONNECTOR PCB SIDE | YKF45-0036N |
| | | *** CRYSTAL & CERAMIC OSCILLATORS *** | |
| X2401 | 100DT05501 | CRYSTAL | SMD-49 |
| X2402 | 100DT02503 | CRYSTAL | SMD-49 |
| | | *** NETWORKS *** | |
| NR2401 | 110P4102M5 | R,NETWORK | 4D02WGJ0102TCE |
| NR2402 | 110P4220M6 | R,NETWORK | 4D02WGJ0220TCE |
| NR2403 | 110P4220M6 | R,NETWORK | 4D02WGJ0220TCE |
| NR2404 | 110P4220M6 | R,NETWORK | 4D02WGJ0220TCE |
| NR2405 | 110P4220M6 | R,NETWORK | 4D02WGJ0220TCE |
| NR2406 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2407 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2408 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2409 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2410 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2411 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2412 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| NR2413 | 110P4560M5 | R,NETWORK | 4D02WGJ0560TCE |
| | | **SCALER PCB ASS'Y** | |
| | | *** PCB *** | |
| PCBDS0 | A5X504GDS0 | SCALER PCB ASS'Y | CEF170A |
| | | *** DIODES *** | |
| D101 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 |
| D105 | DD7R20S300 | DIODE,SCHOTTKY BARRIER | RB520S-30-TE61 |
| D106 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 |
| D109 | DD7R20S300 | DIODE,SCHOTTKY BARRIER | RB520S-30-TE61 |
| D802 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 |
| D803 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 |
| D805 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 |
| D807 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 |
| D808 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** DIODES *** | | |
| D3206 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3207 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3209 | D28R11FS20 | DIODE | EC11FS2-TE12L | |
| D3600 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3601 | DD7R60L400 | DIODE,SCHOTTKY | RB160L-40-TE25 | |
| D3602 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 | |
| D3603 | DD7R60L400 | DIODE,SCHOTTKY | RB160L-40-TE25 | |
| D3606 | D28R1QS040 | DIODE | EC31QS04-TE12L | |
| D3609 | DE7RB3R32B | DIODE,ZENER | UDZS3.3B TE-17 | |
| D3613 | DE7RB3R32B | DIODE,ZENER | UDZS3.3B TE-17 | |
| D4301 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 | |
| D4302 | DE7RB5R62B | DIODE,ZENER | UDZS5.6B TE-17 | |
| D4310 | DD7R0S3550 | DIODE,SILICON | 1SS355 TE-17 | |
| | | *** ICS *** | | |
| IC101 | I56F07155B | IC | OEC7155B | |
| IC102 | I9UF032290 | IC | PST3229NR | |
| IC103 | ICRJ0256N0 | IC | AT24C256N-10SU-2.7 | |
| IC104 | ICRJ0256N0 | IC | AT24C256N-10SU-2.7 | |
| IC801 | I56K07A720 | IC | R8J66607A72FP | |
| IC2101 | IFSK0883C0 | IC | MST9883C-LF-110 | |
| ⚠IC3201 | I07F0C0WF0 | IC | BA00BC0WFP-E2 | |
| ⚠IC3202 | I07F078200 | IC | BD7820FP-E2 | |
| IC3600 | I07F078200 | IC | BD7820FP-E2 | |
| IC3601 | I57J0L02F0 | IC | BR24L02F-WE2 | |
| IC3602 | I07F0C0WF0 | IC | BA00BC0WFP-E2 | |
| IC3603 | IG1F090110 | IC | SII9011CLU | |
| IC3605 | IG4F020210 | IC | CM2021-00TR | |
| IC3608 | I57J0L32F0 | IC | BR24L32F-WE2 | |
| IC3611 | ICMF089E50 | IC | SST89E58RD2-40-C-TQJE | |
| IC7201 | IF8F0385A0 | IC | ICSV385AGLFT | |
| IC8103 | I0UF015010 | IC | MM1501XNRE | |
| | | *** TRANSISTORS *** | | |
| Q101 | TNAAC05002 | COMPOUND TRANSISTOR | KRC103SRTK | |
| Q104 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q104 | T27T030180 | FET | 2SK3018T106 | or |
| Q105 | TPAAC05002 | COMPOUND TRANSISTOR | KRA103SRTK | |
| Q106 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q106 | T27T030180 | FET | 2SK3018T106 | or |
| Q2101 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q2101 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| Q3205 | TAAA01664Y | TRANSISTOR,SILICON | KTA1664-Y-RTF/P | |
| Q3206 | TNAAB05003 | COMPOUND TRANSISTOR | KRC102SRTK | |
| Q3209 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q3210 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q3600 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q3600 | T27T030180 | FET | 2SK3018T106 | or |
| Q3605 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q3605 | T27T030180 | FET | 2SK3018T106 | or |
| Q3606 | T2AA5132E0 | FET | KTK5132E-RTK/P | |
| Q3606 | T27T030180 | FET | 2SK3018T106 | or |
| Q4302 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4302 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q4305 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q4305 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q8101 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q8101 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| Q8102 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q8102 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q8103 | TCAA3875SY | TRANSISTOR,SILICON | KTC3875S_Y_RTK | |
| Q8103 | T8RA030520 | TRANSISTOR,SILICON | 2SC3052-T1 | or |
| Q8105 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q8105 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| Q8106 | TAAA1504SY | TRANSISTOR,SILICON | KTA1504S_Y_RTK | |
| Q8106 | T6RA015300 | TRANSISTOR,SILICON | 2SA1530A-T1 | or |
| | | *** COILS *** | | |
| B801 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B802 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B803 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B803 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B804 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B804 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B805 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | | |
|---|---|---|---|---|
| | | *** COILS *** | | |
| B2101 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B2101 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B3201 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3202 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3203 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3206 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3207 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3208 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3209 | 024AC5181J | CORE,BEADS | BLM18PG181SN1D | |
| B3601 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3601 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B3602 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3602 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B3603 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3603 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B3604 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3604 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B3605 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3605 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B3606 | 024HC51023 | CORE,BEADS | FCM1608KF-102T02 | |
| B3606 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D | or |
| B3610 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B3610 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| B3612 | 024HC51023 | CORE,BEADS | FCM1608KF-102T02 | |
| B3612 | 024AC5102F | CORE,BEADS | BLM18BD102SN1D | or |
| B3614 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3614 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B3615 | 024HC51513 | CORE,BEADS | FCM1608KF-151T06 | |
| B3615 | 024AC5151E | CORE,BEADS | BLM18BD151SN1D | or |
| B4307 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B4308 | 0246C51024 | CORE,BEADS | MMZ1608R102CT | |
| B7201 | 024HC56005 | CORE,BEADS | FCM1608CF-600T06 | |
| B7201 | 024AC5600E | CORE,BEADS | BLM18BB600SN1D | or |
| L2101 | 0216S8220K | COIL | F 22 UH | |
| L2102 | 0216S8220K | COIL | F 22 UH | |
| L2103 | 0216S8470K | COIL | F 47 UH | |
| L2106 | 0216S42R2J | COIL | 2.2 UH | |
| L2107 | 0216S8220K | COIL | F 22 UH | |
| L4306 | 0216S8220K | COIL | F 22 UH | |
| L7201 | 0216S8470K | COIL | F 47 UH | |
| L7202 | 0216S8470K | COIL | F 47 UH | |
| L7203 | 0216S8470K | COIL | F 47 UH | |
| L8102 | 0216S8470K | COIL | F 47 UH | |
| L8105 | 0216S8220K | COIL | F 22 UH | |
| | | *** JACKS *** | | |
| J4301 | 060J431025 | RCA JACK | MSD-242VA1-03_NI_FE_LF | |
| | | *** CONNECTORS *** | | |
| CP101 | 069S250629 | CONNECTOR PCB SIDE | A2001WV2-5P | |
| CP102 | 069S2A0629 | CONNECTOR PCB SIDE | A2001WV2-10P | |
| CP103 | 069S270629 | CONNECTOR PCB SIDE | A2001WV2-7P | |
| CP802 | 069EVU3030 | CONNECTOR PCB SIDE | 00_6232_030_006_800+ | |
| CP803 | 069EVT3030 | CONNECTOR PCB SIDE | 00_6232_029_006_800+ | |
| CP2200 | 069S230629 | CONNECTOR PCB SIDE | A2001WV2-3P | |
| CP3201 | 069S2B0629 | CONNECTOR PCB SIDE | A2001WV2-11P | |
| CP3601 | 069HYJ3010 | CONNECTOR PCB SIDE | DC1R019JDA | |
| CP3602 | 069S240629 | CONNECTOR PCB SIDE | A2001WV2-4P | |
| CP3604 | 069S290629 | CONNECTOR PCB SIDE | A2001WV2-9P | |
| CP4303 | 069S260629 | CONNECTOR PCB SIDE | A2001WV2-6P | |
| CP7203 | 069HVWT04A | CONNECTOR PCB SIDE | FI-X30S-HF-NPB | |
| | | *** CRYSTAL & CERAMIC OSCILLATORS *** | | |
| X101 | 100WT01611 | CRYSTAL | HC-49/U-S | |
| X801 | 100YT05401 | CRYSTAL | FCX-03 | |
| X3601 | 100CT01101 | CRYSTAL | HC-49/U-S | |
| X3602 | 100DT02801 | CRYSTAL | SMD-49 | |
| | | *** NETWORKS *** | | |
| NR801 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E | |
| NR802 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E | |
| NR803 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E | |
| NR804 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E | |

# ELECTRICAL REPLACEMENT PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| | | *** NETWORKS *** | |
| NR805 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E |
| NR806 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E |
| NR807 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E |
| NR808 | 110P4103M4 | R,NETWORK | 4D03WGJ0103T5E |
| NR809 | 110P4103M4 | R,NETWORK | 4D03WGJ0103T5E |
| NR2101 | 110P4101M4 | R,NETWORK | 4D03WGJ0101T5E |
| NR2102 | 110P4101M4 | R,NETWORK | 4D03WGJ0101T5E |
| NR2103 | 110P4101M4 | R,NETWORK | 4D03WGJ0101T5E |
| NR2104 | 110P4101M4 | R,NETWORK | 4D03WGJ0101T5E |
| NR2105 | 110P4101M4 | R,NETWORK | 4D03WGJ0101T5E |
| NR2106 | 110P4101M4 | R,NETWORK | 4D03WGJ0101T5E |
| NR3601 | 110P4330M4 | R,NETWORK | 4D03WGJ0330T5E |
| NR3602 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E |
| NR3604 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E |
| NR3605 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E |
| NR3606 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E |
| NR3607 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E |
| NR3608 | 110P4000M4 | R,NETWORK | 4D03WGJ0000T5E |
| NR7201 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E |
| NR7202 | 110P4470M4 | R,NETWORK | 4D03WGJ0470T5E |
| | | *** OTHERS *** | |
| SH4301 | 126R000038 | TERMINAL PIN | TP00370-21 |
| SH4302 | 126R000038 | TERMINAL PIN | TP00370-21 |
| SH4303 | 126R000038 | TERMINAL PIN | TP00370-21 |
| | | **AND OTHERS** | |
| | | *** COILS *** | |
| TR301 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR303 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR304 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR305 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR504 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR507 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR508 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR701 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR702 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR3001 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| TR4202 | 02AHB9A972 | CORE,FERRITE | W5T29X7.5X19 |
| | | *** CONNECTORS *** | |
| CD4203 | 122H0T1401 | CORD,JUMPER | 2H0T1401 |
| CD4204 | 122H0U1401 | CORD,JUMPER | 2H0U1401 |
| | | *** AC CORD *** | |
| ⚠CD3801 | 1209119904 | CORD,SET AC | 9119904 |
| | | *** OTHERS *** | |
| CD301 | 06CU124002 | CORD,CONNECTOR | CU124002 |
| CD303 | 06CU127601 | CORD,CONNECTOR | CU127601 |
| CD505 | 06CU2E5101 | CORD,CONNECTOR | CU2E5101 |
| CD901 | 06CU246601 | CORD,CONNECTOR | CU246601 |
| CD2201 | 06CU235502 | CORD,CONNECTOR | CU235502 |
| CD3802 | 06CU123701 | CORD,CONNECTOR | CU123701 |
| CD3803 | 06CU1C4201 | CORD,CONNECTOR | CU1C4201 |
| CD3804 | 06CU173701 | CORD,CONNECTOR | CU173701 |
| CD3805 | 06CU144706 | CORD,CONNECTOR | CU144706 |
| CD3806 | 06CU273702 | CORD,CONNECTOR | CU273702 |
| CD3807 | 06CU2B5501 | CORD,CONNECTOR | CU2B5501 |
| CD4202 | 06CU256001 | CORD,CONNECTOR | CU256001 |
| CD7204 | 06CHRU3002 | CORD,CONNECTOR | CHRU3002 |
| CUS811 | 800WFAA007 | CUSHION B | |
| ⚠SP301 | 0701016002 | SPEAKER | EAS12D175B |
| ⚠SP302 | 0701016002 | SPEAKER | EAS12D175B |
| BT001 | 141L003010 | BATTERY,MANGAN | R6P(AR)XICI |
| BT002 | 141L003010 | BATTERY,MANGAN | R6P(AR)XICI |
| ⚠V2301 | 09E4126002 | LCD | LK260T3LF12 |
| TM101 | 076B0MR010 | TRANSMITTER | ETR0088-010021 |

# ELECTRICAL REPLACEMENT PARTS LIST

RESISTOR

| | |
|---|---|
| RC | CARBON RESISTOR |

CAPACITORS

| | |
|---|---|
| CC | CERAMIC CAPACITOR |
| CE | ALUMI ELECTROLYTIC CAPACITOR |
| CP | POLYESTER CAPACITOR |
| CPP | POLYPROPYLENE CAPACITOR |
| CPL | PLASTIC CAPACITOR |
| CMP | METAL POLYESTER CAPACITOR |
| CMPL | METAL PLASTIC CAPACITOR |
| CMPP | METAL POLYPROPYLENE CAPACITOR |

SHARP

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